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PAPER TRADE JOURNAL

THE INTERNATIONAL WEEKLY OF THE PAPER AND PULP INDUSTRY

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FIFTY-SECOND YEAR

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Vol. LXXVII. No. 6 NEW YORK AND CHICAGO, AUGUST 9, 1923

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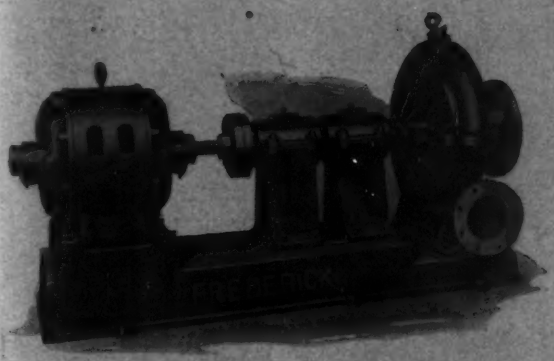

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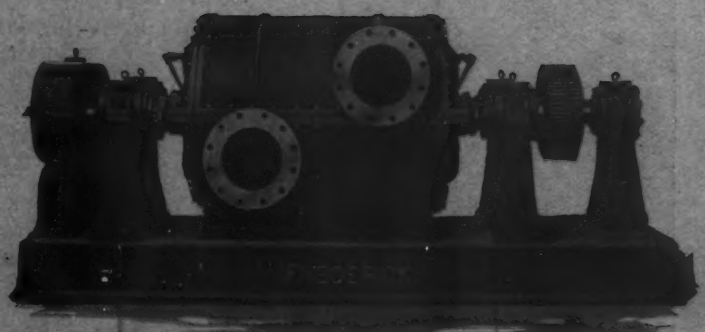

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THE INTERNATIONAL WEEKLY OF THE PAPER AND PULP INDUSTRY AND THE PIONEER PUBLICATION IN ITS FIELD

FIFTY-SECOND YEAR

Published Every Thursday by the

LOCKWOOD TRADE JOURNAL CO. INC.

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PAPER TRADE JOURNAL

Vol. LXXVII. No. 6 NEW YORK AND CHICAGO Thursday, August 9, 1923

PAPER EXCHANGE PLANS BEING PERFECTED

Proposition has Made Such Headway that Chicago Headquarters Have Already Been Secured—All The Various Branches of The Industry to be Included in The Project—Exchange Will Alter Entire Aspect of Paper Market Declares George Gair who Explains How New Plan Will Work—Rules Governing Brokerage One of the The Matters as Yet Uncompleted—Book of Rules Printed.

Plans for the establishment of an exchange for dealing in paper and allied products are going forward rapidly. George Gair, of the Robert Gair Company, said on Monday that the board, wire, felt and waxed paper divisions of the industry were all ready to begin trading. In Chicago the exchange will be located in the Wrigley Building. Space has already been rented. Just where the New York exchange will be has not yet been decided. Mr. Gair, who is to look out for this, said that he intended to wait a little while before leasing the offices.

It is proposed to include all of the various branches of the industry in the new project. The tissue men have already shown great interest in the proposition and many of them are said to be lining up for membership. Several book paper manufacturers have also inquired about the exchange and expressed approval of the plan. One or two news print concerns have also been approached, but their attitude is not known at the present time.

Will Revolutionize Paper Market

Mr. Gair said that the exchange would alter the whole aspect of the paper market. Futures would be bought and sold just as they are on the cotton exchange or in the wheat pit. This, of course, would tend to make paper a speculative commodity, but Mr. Gair pointed out that it would have a stabilizing effect in spite of this.

Particularly in the waste paper field the exchange is expected to have a good influence. Mr. Gair pointed out that much of the buying in waste paper is of the from hand to mouth variety simply because the board mills are not sure of the packing and do not feel that they can quite trust the dealers. He said that in the case of his own company this was true and that he would be glad of an opportunity to buy for future use.

Suppose two or three of the largest dealers in waste paper come in on the exchange. They will be subject to its discipline and therefore they could be trusted. October waste could be bought in August because the packing would be standardized by the exchange rules.

Mr. Gair then explained the methods of classification and selling. In each field of the industry some one thing would be picked on which to make a basic price. The other articles would be either cheaper or more expensive. Supposing, for instance, news print in rolls were used as a basis in this branch of the market.

Method of Fixing Prices

Specifications as to the weight, quality and other points would be drawn up and agreed upon. Then, if the price were 3.80 to 4.00 cents a pound a differential would be fixed for the other grades of news, using this as a basis. A half a cent a pound might be added for the price of sheets and a half a cent subtracted for the price of side runs. Thus the fundamental relationship between the three would always remain the same and the prices of all three would be based upon roll news. Sheets would always be a half a cent higher a pound and side runs a half a cent lower.

Trading in some of the more unusual grades of paper, where absolute standardization might be difficult, could be done by sample. The Chicago Board of Trade does this with certain things and the plan has worked out very satisfactorily.

When asked whether the exchange would have a ticker system Mr. Gair said he thought not, at least for the present. The plan is to have the quotations chalked up on a board as fast as they change and then get out a small daily newspaper giving prices for the day's trading.

The whole thing has resulted from the decision of the Supreme Court of the United States that the Armstrong Bureau, with which a large group of board manufacturers were identified, was operating in violation of the Sherman Law. Mr. Gair said that the decision of the court clearly pointed out that any organization composed exclusively of sellers banded together for their own benefit was illegal. The exchange, Mr. Gair thinks, will tend to stabilize the market, by making trading and prices a matter of public information and at the same time the buyers will be admitted to it making it no more illegal than the stock exchange or any of a hundred or so similar institutions now in operation in various parts of the country.

Some Details Still Uncompleted

The details of the project have not yet been fully worked out, but a meeting of those interested was held on Tuesday at Niagara Falls, N. Y., where they were discussed. Such things as the rules governing brokerage have yet to be completed. A book of rules of the exchange has been printed and it covers the broad general aspects of the new organization.

Increases Its Capital Stock

COLUMBIA, S. C., August 6, 1923.—The Carolina Paper Company of Columbia, originally capitalized at $20,000, was allowed to amend its charter so as to increase its capital stock to $50,000. The company, which was chartered May, 1920, manufactures, buys and sells paper, paper boards of every description, paper specialties and novelties, cordage, ropes, threads and twines. Directors signing the application for the amendment of the charter are: Sol Fleischman, president, and P. H. Rogers, Jr., and A. S. Harris.

New Plant for Container Manufacturing

FALL RIVER, Mass., August 6, 1923.—The plant formerly occupied by The International Piano Company on Alden street is now undergoing reconstruction to adapt it to the requirements of The Moore Container Corporation. It is being equipped with special container machinery. The company will manufacture paper cans of all shapes and sizes, air tight, water tight and odor proof; sanitary paper milk bottles, paper pie plates, ice cream containers, paper thermos bottles, cigarette boxes, etc.

PHILADELPHIA HOUSES MOVE ACCUMULATIONS OF STOCKS

Their Return to Market for Mixed Commons and Old News Causes Stiffening in Prices—First Days of August Bring a Few Large Orders and Some Price Cutting Is Reported —Allied Paper Products, Inc., to Extend Line at Newly Purchased Plant at Riverton, N. J.—Dee Paper Co. Acquires Additional Building Space—Charles Beck Co. Issues Hand Book of Beck Papers.

[FROM OUR REGULAR CORRESPONDENT.]

PHILADELPHIA, Pa., August 7, 1923.—August has started in considerably better than July closed even though the record for that month was far from being unsatisfactory. Curiously enough, although some time ago, there was much discussion in trade circles and considerable complaint that orders while plentiful ran to such small amounts individually, attention now is called to the presence of large orders and in a critical spirit at that. This arises solely from the fact, however, that the large orders that now are appearing are so few that their effect on the trade has been to stimulate competition to the point of price-cutting and even of slashing in order to get business at cost or even below as a means of meeting overhead. A few of the big catalogue and large edition direct by mail orders which had been noised about for some time, actually were placed during the week and the size of a few of them brought on an immense competition. Printers and publishers, however, maintain that unless paper prices were made attractive they would not be in a position to go ahead with the execution of these orders, because they themselves had to cut prices in order to secure them. One of the very largest printing concerns in the City is operating on a sixteen hour basis with two shifts and is reported to be slashing prices in order to keep its organization intact and to bring in revenue to meet an overhead which cannot be avoided.

No Price Concession in Fine Papers

Save in these reported instances of cutting to secure what the distributors regarded as desirable orders, fine paper prices remain firm all along the line and without change. It is the opinion of distributors that August first having come and gone without any price concessions by the Mills certainly no downward revision can be anticipated now that the month of resumed activities is approaching. In the small order business all the lines of fine printing papers are moving in a fairly steady stream and without notable feature.

Price Cutting in Coarse Paper

In the coarse paper market conditions are not as satisfactory as in the fine because buying is not so general and competition is much more severe, reports being frequently circulated of price cutting by distributors on both large and small orders. The cheaper grades of wrappings are in rather plentiful supply and, while there is no congestion of goods in the market, nearly all the dealers are well loaded up with them. Number two craft and its imitation are rather abundant too and some Mills are under-quoting the market, but only where particular circumstances exist. Generally the market is steady for this grade and is firm for number one kraft.

Stock Dealers Optimistic

The brightest conditions in trade circles is found among the paper stock dealers. They are all confident that the lethargy which has existed for several months, now definitely has been broken and that there will be continuous improvement not only in orders but perhaps even in quotations as the season progresses. Apparently, so far as the local mills are concerned, the large amounts of stocks they had accumulated during May and June have been exhausted. Certainly they are again in the market for mixed commons and old news in more lively fashion than they have been for the last month. The entire absence of any accumulation of these grades, immediately caused a stiffening and some advance in prices upon the placing of orders. One of the largest packers said that the market was so bare of any accumulations of old papers that if he received an order for a carload he would have to rack his brain in order to fill it. All the better grades continue to move steadily but without feature and the whole list of quotations may now be said to be back to normal.

Federal Reserve Report on Market

A resume of paper conditions during July from so disinterested a source as the Federal Reserve Bank for the Philadelphia District, was published under date of August 1. In the course of it the Bank says:

"A further decline in the demand for most of the important grades of paper and a curtailment of production have been the outstanding developments of the month in the paper industry. The call for wrapping papers has been rather light and only a few mills have sufficient orders to warrant full operation. Several plants, however, are operating at capacity and putting their entire surplus into stock. The demand for fine papers fell off noticeably and wholesalers report that sales of these grades are at least fifteen per cent smaller than they were in April, the peak month of the year. Book papers are in better request than the two preceding grades but here too a decline in demand has occurred and book paper mills have caught up with their order. However, most plants have some large orders for delivery next month.

"As July is a dull month in the paper market, the inactivity which has been apparent was looked for and most manufacturers are satisfied with the condition of business which is variously estimated to be 20 to 25 per cent better than July, 1922. Paper distributors state that although the demand is only fair and shows a decline from that of the previous months of this year, on the whole, their sales are running about 25 per cent ahead of those of July, 1922. However, consumers are still buying from hand to mouth and wholesalers in order to get their share of business are obliged to carry complete stock. Unskilled labor is still scarce at many mills but the supply of skilled labor is sufficient to meet the needs of the majority of manufacturers. Wages are generally unchanged, the May rates of pay being still in force. Collections vary from fair to good and in general show little change over last month."

New Plant for Allied Paper Products

Purchase just has been made of a two acre plot with three buildings thereon, at Riverton, N. J., by the Allied Paper Products, Incorporated, now located at Twentieth street and Erie avenue and the firm will move there when the extensive program of building operations, involving the modernization of the structures now standing and construction of an addition to the largest of the three buildings, is completed. In its new location, with the larger facilities made possible by the twenty-five thousand feet of manufacturing space which will be available, the firm proposes to extend its present production of toilets and towels and particularly of tubular products for use among other purposes as cores in paper and textile mills. On the new site there is provided a railroad siding from the Pennsylvania System. The plant formerly was occupied by the McWhorter Manufacturing Company, makers of farm implements. In addition to the installation of equipment for the manufacture of established products there will also be provided special machinery for production of a number of new lines on which the firm will enter. The Allied Products was incorporated for the conduct of business a little over a year ago, and has as its head in the management a member of the firm, H. W. K. Smith, who is now in Riverton supervising the remodelling of the plant.

(*Continued on page 26*)

President
SIR FREDERICK BECKER

Manager of Sales
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PHILADELPHIA HOUSES MOVE ACCUMULATED STOCK

(*Continued from page 24*)

An entire building has been acquired for the expansion of the business of the Dee Paper Company, 225 Church street. The Dee Company, of which Max Dee is proprietor, formerly occupied the second floor of the building and beginning this month has taken possession of the remaining three floors. The first floor will be used as executive offices while the basement and upper floors will be devoted to the shipping and warehousing of its line of coarse papers, twines, corrugated boxes and paper specialties. It is the purpose of Mr. Dee, who entered into business for himself a little over five years ago, of expanding the lines of coarse papers now carried. There will also be added salesmen to the selling force.

Price Situation in Finnish Mills

Because the PAPER TRADE JOURNAL is read so extensively abroad, particularly in such centers of manufacture as Finland, Sweden and Norway, and is regarded as an authority on American conditions, President Norbert A. Considine of the Paper House of Pennsylvania is desirous that no erroneous impression be conveyed from his interview in these columns on his return from an extensive trip abroad. Said he, "I do not wish to have the impression conveyed that the Finnish paper manufacturers were like those in Sweden and Norway, obsessed with the idea that they could raise prices at their will. I was properly quoted in saying that I came back with orders I had intended to place unfilled because of the almost crazy ideas about values abroad, but this statement did not refer and was not intended to include the Finnish paper manufacturers. We have always found the Finnish mills with whom we do business, most reasonable in the matter of price. Moreover on account of the large tonnage that we have purchased from them, our contracts usually are made over a large period of time. We have had no trouble at all with Finland about prices. The condition your correspondent describes I found to exist in Norway and Sweden only. It was the manufacturers of these two countries that I found possessed of extraordinary ideas as to the prices they could secure for their product in the American market. Knowing that your JOURNAL is very widely read in Finland and not wishing to give my friends in Finland a false impression of my visit I am hopeful that you will make it clear that my references were not intended to include them. I found them thoroughly posted on American conditions and in several cases when trade matters were under discussion, they hunted up copies of the JOURNAL and pointed out them as the final and conclusive authority."

Riegel & Co. Gets Stock Shipments

Riegal & Co., newly appointed co-distributors with the Garrett-Buchanan Company for the lines of the American Writing Paper Company, are now receiving the first shipments of stock of the new line, a large amount of which will be housed in their warehouse. A formal statement of appointment goes out to the trade in a few days. The company has added to its sales organization Joseph Deal, who will have an office in Harrisburg and will look after Central Pennsylvania trade. Mr. Deal has been located in Harrisburg for many years and previously was connected with the D. L. Ward Company and with Chatfield & Woods.

Valuable Book Issued by Beck Co.

The Charles Beck Company, 609 Chestnut street, has ready for distribution to the trade a volume called "Hand Book of Beck Papers, 1923," and described as "A Concise Compilation of Practical Buying Information for the Printer and Buyer of Printing for Use in Conjunction Monthly with Price List." It is a volume of two hundred and twenty pages bound in stiff cover paper with a flap on the inside of the first page for the insertion of the wholesale price list issued monthly. The firm believes that the present work is the first of its kind to be issued in this city. It purposes issuing an annual edition. Lines are grouped under the general classification, and under these group headings in alphabetical order, the information giving all the facts as to manufacturer, colors, finish, size, weight, carried in stock, in stock in mill, manufacturing possibilities, grain, how packed, paper to match, quantity discounts and general characteristics so that by its use the paper purchaser can as intelligently fill his exact requirements in his office as by a visit to the store. The monthly price list and several samples supplement this volume.

Veteran Stock Dealers Visit Trade

There visited the trade by coincidence during the week two of the best known paper stock dealers of a decade ago, both now retired, but both still keenly interested in the industry. They were Evan G. Bodger, who is now interested directly in other lines, and Jefferson I. Lenhart, who retired several years ago, now devoting his time to practice in faith healing and to real estate investments. He gave assurance to his friends that under no circumstances could he be induced to return to the trade, remarking laughingly, "In the thirty years which I spent in the paper stock trade I had six fires and I paid an income tax only once. Since retiring from it I have been paying income taxes every year."

Death Claims Datz Co. Shipping Head

Charles Armstrong, in charge of the shipping department of A. S. Datz & Son, South Marshall below Market street, died rather suddenly during the week at his home after a brief illness from heart failure. He had been connected with the firm a number of years and was generally known in the industry. He was a widower.

Expansion of S. Walter, Inc.

George Hoffner, paper trade golf champion, will remain in the ranks even though he has changed employment. He is now associated with Simon Walter, Inc., 144 North Fifth street, and will represent it in the Philadelphia territory. He formerly was with the Charles H. Clinton Company. Mr. Hoffner, brother of the Philadelphia champion golf player, Charles Hoffner, always has to carry the heaviest handicaps in the paper trade golf match because of his proficiency. The Walter Company very shortly will offer a number of specialties and to this end additions to the sales force are about to be made, supplementing the appointment of Mr. Hoffner. The sales organization on regular lines also is to be added to.

Brochure in Memory of W. D. Hurlbut

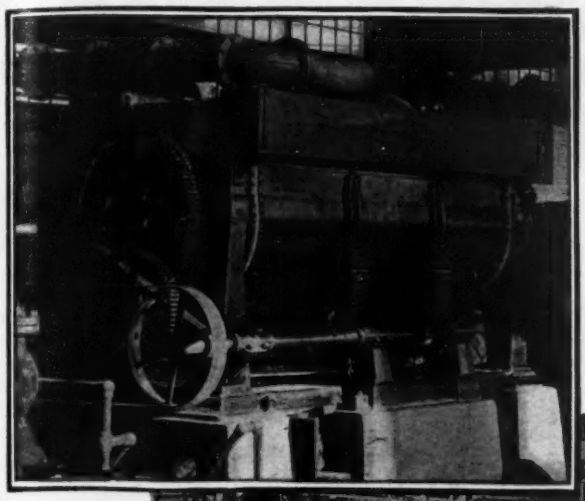
The Wisconsin Traffic Association has issued a brochure to the memory of the late W. D. Hurlbut, secretary and traffic manager of that body, whose death occurred on May 21. The brochure contains a fine likeness of the deceased official, a short biographical sketch of Mr. Hurlbut and the resolutions on his death which were adopted by the Association.

Mr. Hurlbut was born in Ogdensburg, N. Y., August 10, 1861, and began his railroad career with the Illinois Central Railroad, when thirteen years old, as an office boy. He progressed to the position of general freight agent. In 1904 he was made traffic manager for the Wisconsin Paper Mills.

Crocker-McElwain Distributors to Meet

[FROM OUR REGULAR CORRESPONDENT.]

HOLYOKE, Mass., August 7, 1923.—The first annual conference of the distributors of the Crocker-McElwain Company and the Chemical Manufacturing Company, both of Holyoke, Mass., will be held at the Hotel Nonotuck, Holyoke, Mass., on September 10, 11 and 12. This conference is to include all distributors of any of the products of these companies as previous conferences were confined chiefly to distributors of "Certificate Bond."



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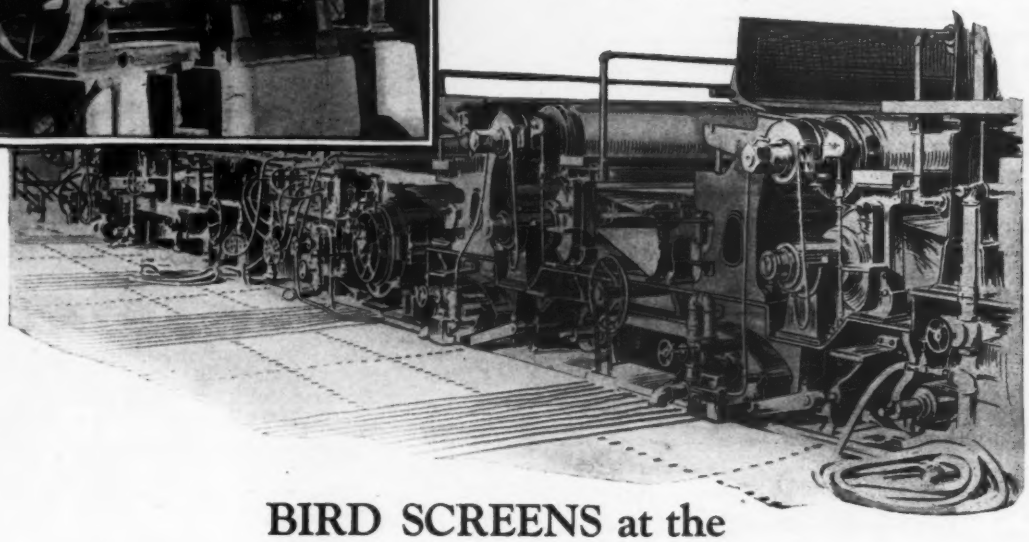

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CANADA SEES REASON FOR BIG EXPORT OF PULPWOOD

Explains Large Increase on Ground That American Pulp and Paper Interests, Alarmed at Possibility of Embargo, Are Stocking Up for An Emergency—National Hydro-Electric Co. Seeks Permission to Raise Carillon Dam Level—Trade Attaches Deep Significance to Sir Frederick Becker's Visit—Newfoundland Power & Paper Co. Issues Mortgage Debenture Stock.

[FROM OUR REGULAR CORRESPONDENT.]

MONTREAL, Que., August 6, 1923.—The exports of pulpwood from Canada for June, which amounted to 197,664 cords as compared with 78,897 for the same amount last year, are held to confirm the idea that the American pulp and paper interests, fearing the possible coming into effect of an embargo, are stocking up with supplies. As all the pulpwood exported goes to the United States, this is a reasonable conclusion. It is felt that the production of pulp and news print on the other side is not increasing at such rapid rate as these exports have done. At the present rate they are 50,000 cords more a month than they were at this time in 1920, which was the heyday of pulp and paper production on this continent. Total exports of pulpwood during the last three months were 385,510 cords, an increase of 185,000 over that for the same period last year. The increase in the value has been from $2,031,786 to $3,524,447. If the present rate of export is maintained throughout the current fiscal year, the total for the 12 months will run close to 2,000,000 cords or double that for last year. Including pulpwood the value of all pulp and paper exports during June was $14,179,778, as compared with $11,360,031 for the same month last year. Deducting the value of pulpwood shipped out, this would make the total for pulp and paper $12,368,456, as compared with $10,545,000 for June, 1922. Of the $14,179,778, the United States took no less than $11,862,946; the United Kingdom, $1,209,737 and all other countries, $1,107,095. Of pulpwood the United States took $3,052,969; the United Kingdom, $999,034 and all other countries, $456,779. Of news print the United States took $6,998,668; the United Kingdom, $210,713, and all other countries, $680,316.

United States Seeking Canadian Power

The King Government has not inaugurated a power policy: indeed it has been reticent to declare itself on the development of the St. Lawrence, but the request by private interests for the right to develop power is bound to force action. An example of this is the application of the National Hydro-Electric Company, Limited, of Montreal, for permission to raise the level of the dam at Carillon on the Ottawa River to 133 feet. In 1911 this corporation obtained a license which only permitted the development of a small amount of power. In 1921 this was changed so as to permit the raising of the level of the dam to 94 feet. Since then the demands for power have so increased that the promoters, the Robert group of Montreal, with whom are associated important American capitalists, now need a much higher level. One of the most important features of the project is that undoubtedly a very large portion of the power developed would be sold in the United States. That big things are contemplated is evident from reports that the expenditure may amount to $30,000,000. The demand from New York and New England States for power is becoming very strong, and it is only a matter of time until the development of this and other important water powers will be forced through the very necessities of the industrial situation. Government officials here point out that in the district extending from Boston to Washington and 150 miles wide, which contains 24 per cent of the population of the States and 70 per cent of the total industrial development of the nation, not more than 21 per cent of its power requirements can be supplied from water powers existing within its own limits. In the eastern areas of the Dominion, where the industrial life is concentrated, there is over 13,000,000 h.p. of undeveloped water power, while in similar districts of the United States there is little more than 1,400,000 h.p. This is one of the reasons why American industrial interests are looking to Canada for a supply of power, and why American capital is coming over to finance such operations.

Expected Expansion of Pulp Industry

The arrival of Sir Frederick Becker in Canada this week is looked on in pulp and paper circles as of great significance. He is planning to spend at least four months here in connection with his various business interests and the length of the visit may be taken to mean that he has some very important plans under consideration. One of these, it is understood, may result in the doubling of the output of the Bay Sulphite Company's plant at Port Alfred, Que. This is running now to capacity at about 140 tons daily of sulphite pulp, and a second unit equal to the present mill could readily be constructed. Railway extensions that would make the enormous pulpwood limits of the Bay Sulphite Company and the Chicoutimi Pulp Company well accessible are also likely to be carried into effect in the near future. The further possibility in the development of the Becker interests in Canada would be the construction of a news print mill beside one of the groundwood pulp mills controlled by the Saguenay Pulp & Power Co. At present all this ground wood pulp, representing some 500 tons a day, is being exported, and it is understood the project of the large news print mill to use a large portion of this right on the ground has been considered. All the mills with which Sir Frederick Becker is associated down the St. Lawrence are producing to capacity. Both sulphite and ground wood pulp shipments are being made to England and France as rapidly as the pulp can be produced. It is understood that about 700 tons daily of the two classes of pulp are being manufactured and shipped across. The proposed embargo on the export of pulpwood which some have felt may finally be extended to pulp to a certain extent may have figured in Sir Frederick's plans for carrying on the stage of manufacture one step further in this country.

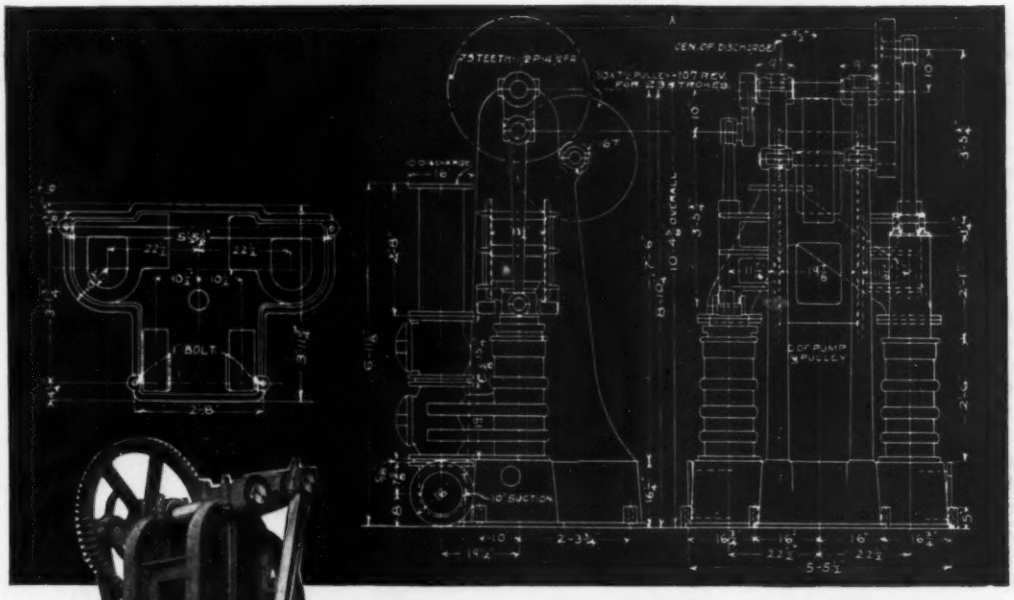
Newfoundland Power and Paper Project

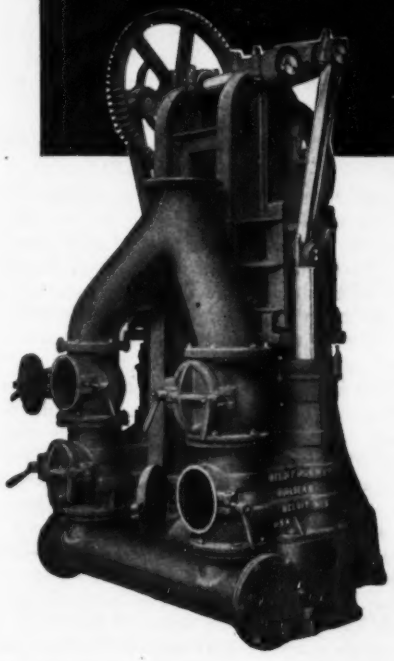
The big Newfoundland project is now taking tangible shape, as exemplified in the issue on the British money market by the Newfoundland Power & Paper Co., Limited (incorporated under the laws of the Colony of Newfoundland) of £2,000,000 sterling 4½ per cent "A" mortgage debenture stock, guaranteed as to principal and interest by the British Government under the provisions of the Trade-Facilities Act. The price of the issue was £95. per cent. The stock will be repayable by means of a sinking fund commencing in 1933 and calculated to redeem the whole of the stock on or before July 15, 1948. The issue of the "A" mortgage debenture stock has been secured by a trust deed in favor of the Whitehall Trust, Limited, as trustees. The Bank of England received the applications for stock, and the register of the stock will be kept at this bank. The Newfoundland Power & Paper Co., Limited, originally known as the Newfoundland Products Corporation, Limited, was incorporated in 1915 under the company law of Newfoundland, and owns valuable water rights and land and extensive timber limits in the colony. Sir W. G. Armstrong Whitworth & Co., Limited, of Elswick Works, Newcastle-on-Tyne, England, recently entered into a contract for the construction of a complete electric development with the requisite dams, headways, canal and pipe lines, and for the construction and equipment of pulp and paper mills with the requisite power station and installations for operating the same at a cost of £1,755,538. The proceeds of the recent issue in London are to be expended primarily in the purchase of plant, machinery and materials manufactured in the United Kingdom, and in providing for the payment of interest on stock of this issue for two

(*Continued on page* 30)

Beloit Heavy Duty Duplex Stuff Pump

Long Stroke





THE ILLUSTRATION at the left shows the popular BELOIT No. 178 Pump, built for heavy duty. Made in sizes, 8" x 20" and 10" x 20". Plungers, ball valves and seats are of bronze; crank pin bearings are bronze bushed. Equipped with self-oiling guides. Has hinged hand-hole plates through which both balls and seats may be inserted. Guides are adjustable to wear. Furnished with or without suction and discharge pipes. Blueprint diagrams above show various dimensions.

Send us your pump specifications.

Sizes and Weights

SIZE	NET WEIGHT	WEIGHT BOXED	CODE WORD
8"x20" Suction and Discharge connected.....	6,500 lbs.	8,300 lbs.	Adopt
8"x20" Suction and Discharge not connected..	5,600 lbs.	7,150 lbs.	Adore
8"x20" Suction connected only	6,125 lbs.	7,825 lbs.	Adrift
8"x20" Discharge connected only.....	5,975 lbs.	7,625 lbs.	Adroit
10"x20" Suction and discharge connected.....	8,300 lbs.	10,600 lbs.	Adgers
10"x20" Suction and discharge not connected..	7,200 lbs.	9,500 lbs.	Adobe
10"x20" Suction connected only	7,850 lbs.	10,150 lbs.	Adolphus
10"x20" Discharge connected only.....	7,650 lbs.	9,950 lbs.	Adonis

Beloit Iron Works **Beloit, Wis., U. S. A.**

NORTHERN NEW YORK MILLS FIND WATER POWER SLACK

Lack of Rain Has Caused Serious Condition and Mills Have to Fall Back on Hydraulic Current where Possible—Special Engineer Files Report on Plans for Storage Reservoirs on The Oswegatchie River—Increase in Price of Ground Wood and Sulphite Pulp Excites Paper Manufacturers—Knowlton Bros. Inc. to Have Annual Outing on August 20.

[FROM OUR REGULAR CORRESPONDENT.]

WATERTOWN, N. Y., August 6, 1923.—Paper mills in Northern New York are experiencing a serious handicap in production on account of lack of power. For several weeks it has been impossible for them to run at full capacity, and a lack of rain causes conditions to become worse daily. Production ranges all the way from 10 to 60 per cent short of normal.

The Hinde & Dauch Paper Company, with mills in this city, has been seriously handicapped. For three weeks there has been but little production, and today only one machine was operating. The water power is negligible and the company has difficulty in purchasing hydraulic current.

Taggart Brothers Company is able to operate only about 60 per cent of capacity.

Knowlton Brothers, Inc., has found it difficult to keep up normal production because of lack of water in its flume, but its contract for electric current keeps the mill running.

The ground wood mill of the St. Regis Paper Company is entirely shut down, the sulphite plant is running at a 40 per cent reduction and the big paper mill is 10 per cent below normal. The use of hydraulic power is the only relief.

The Sherman Paper Company shares the bad conditions as does also the Continental Paper and Bag Mills in this city.

The Utilities, with diversified sources of power, is handicapped but having success in filling contracts. "The mills at Carthage are taking the water over Sundays and thus depriving the wheels below," said Mr. Carlisle.

Reports on Plans for Storage Reservoirs

E. S. Cullings, secretary of the Board of the Black River Regulating Board and special engineer employed by the Oswegatchie Power Commission, has just finished his survey and compiled a report on the proposition of storage reservoirs for the Oswegatchie river. Copies of the voluminous report, including maps, have been mailed to the members of the commission and to J. N. Carlisle, Michael Doyle and a representative of the Newton Falls Paper Company who made up a special committee. A meeting of the power owners along the Oswegatchie river will be called for the near future to study the data submitted by Mr. Cullings.

In his report Mr. Cullings has outlined several possibilities. For storage on the East branch he mentions several plans. The Cranberry Lake reservoir could be developed to 3,000,000,000 cubic feet, or the same storage might be provided by a reservoir at Newton Falls that would hold 500,000,000 cubic feet and another on the Inlet that would hold 2,500,000,000 cubic feet. There is also a possible reservoir on Little River with a half-billion cubic feet capacity.

The East and West branches have their confluence at Talcville. The proposition for storage on the West branch involves a 5,000,000,000 cubic feet reservoir at Harrisville.

The data show that a net power head of 1,065 feet is available on the East branch while a total of only 552 feet is located on the West branch.

In speaking of the matter Monday John N. Carlisle, president of the Northern New York Utilities, Inc., and a member of the Board of the Black River Regulating District, said that the figures involved in the various propositions would not be announced until the interested power owners met. He admitted, however, that the main interests of his company were in the development of the East branch where the cost would be distributed among a much larger number of power owners than on the West branch.

The proposed East branch development would involve legislative action to change the course of the state highway which now follows the river from Benson Mines to Newton Falls and thence to Cranberry Lake. A dyke 1,600 feet long would be required to cut across the river at a point near Newton Falls and over a shorter and more level route direct to Cranberry. It would shorten the distance by about two miles. The present road would be flooded by the proposed reservoirs.

Stirred by Jump in Sulphite Pulp

Paper manufacturers in this section are keenly interested in the information that on September 1 there will be an advance of 10 per cent in the price of ground wood and sulphite pulp being shipped here from Canada.

E. W. Elsworth, local pulpwood dealer, said Monday that he had received official notice of the advance. He obtains much of his pulpwood and its products from Canadian sources.

"It looks to me much like a move on the part of the Canadians to take advantage of the low water conditions which obtain in this section during the dry summer season," said Mr. Elsworth.

A considerable quantity of foreign sulphite was being used in Northern New York mills a few months ago, but this condition disappeared as the paper mill owners were able to manufacture their own.

Knowlton Bros. to Have Outing

The Eighth Annual Outing of Knowlton Brothers, Inc., will be held Monday, August 20, at Elite Park near Theresa, it has just been decided. About 200 officers and employees of the company will make the trip, starting out early in the morning and staying all day. The mill will be shut down for the affair, as usual.

CANADA ON EXPORT INCREASE

(*Continued from page 28*)

years. The funds required for the purpose of paying for the works to be carried out in Newfoundland are to be provided for by a second issue on the British money market of £2,000,000 "B" mortgage debenture stock, and in connection therewith a piquant situation has arisen. The prospectus of the "A" debenture stock stated that the "B" debenture stock, bearing 5½ per cent interest, and guaranteed as to principal and interest by the Government of Newfoundland, was to be issued forthwith. The issue of "A" stock guaranteed by the British Government, bears 4½ per cent interest, or 1 per cent less than the "B" stock guaranteed by the Newfoundland government. Arrangements had been definitely made for the issue of the 5½ per cent stock at 95, but representations were made from certain quarters that these terms underrated the credit of Newfoundland, and the second issue has been held back—for the time being at any rate, and at the time of writing no further announcement has been made. The share capital of the Newfoundland Power & Paper Company, Limited, is $21,000,000, made up as follows: $10,000,000 in 6½ per cent non-cumulative preference shares of $100 each, $5,000,000 in ordinary shares of $100 each, $6,000,000 in deferred ordinary shares of $100 each. All of this share capital has been issued. The loan capital of the company is £4,000,000 sterling consisting of £2,000,000 at 4½ per cent "A" mortgage debenture stock, guaranteed by the British Government and which has just been issued on the British market, and £2,000,000 5½ per cent "B" mortgage debenture stock, guaranteed by the Newfoundland Government. It is in connection with the latter, or "B" stock, that a hitch has arisen. The debenture stock is of £100 sterling denomination.

"We can Speed up our Paper Machines —*without pitching the wire*"

"And what is more we feed the stock directly on to the wire at any speed we find necessary without the use of slices, and we are making, besides, a sheet of uniform thickness."

"It is all due to a new device that we installed a short time ago. It can be adjusted quickly and easily, and so accurate and fine are the adjustments that the sheet can be made uniform over its entire width. Our wires last longer, too, because we eliminated the slices that used to wear them down."

"The new device was easy to install. We put it right in, in combination with the flow box that we had on the machine. It is called the Voith High Pressure Stock Inlet."

This has been the experience of all manufacturers installing the new Voith Inlet. We will be glad to give you full information regarding it. A post card will bring an interesting illustrated pamphlet.

Valley Iron Works Company

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New York Office: 350 Madison Ave.

Builders of Fourdrinier & Cylinder Paper Machines, Niagara and Holland Beaters, P. A. P. A. Rotary Pulp & Paper Screens, Wolf Chippers, Valley Wet Machines, and other high grade paper and pulp mill equipment.

AMERICAN STRAWBOARD CO., SOLD AT RECEIVER'S SALE

Sale Held July 18 Before Referees in Bankruptcy Frank L. Wean and Frank M. McKey on Petition of Bondholders —Various Properties Brought $1,588,300 or More Than Sufficient to Satisfy Claims of All Creditors—100 Interested Parties Present at Sale and Various Sales Were Confirmed on July 20—Complete List of the Successful Bids and Amount of Accompanying Deposits.

[FROM OUR REGULAR CORRESPONDENT.]

CHICAGO, August 6, 1923.—The American Strawboard Company, which has maintained offices in the Conway Building, Chicago, was sold July 18 at a receiver's sale before Referee in Bankruptcy Frank L. Wean and Frank M. McKey, in Judge Carpenter's court in this city. Petition of the bondholders caused the American company to be placed in the hands of a receiver. These bondholders with an investment of $1,400,000 will be paid in full, likewise all claims, creditors and liens of established repute. From the sales of various mills and other properties, the amount realized was $1,588,300, fully $188,300 above the bonded indebtedness.

At the sales there were about 100 various interested parties. A committee representing the bondholders was composed of the following: C. W. Anderson, B. A. Brennan, C. S. Eaton and J. C. Fanhager. The property was sold in parts or lots, all bids being accompanied by a 10 per cent guarantee of the amount bid, any bidder failing to make payment within 10 days after confirmation of sales, the guaranteed deposit to be forfeited. Confirmation occurred on July 20.

Lots were numbered from one to twelve, the latter including the three mills at Quincy and Wilmington, Ill., and Noblesville, Ind. These have been operated by the trustee in bankruptcy and are represented as returning a net revenue for the past ten months of $517,429.93. Raw material, unfinished and finished product and other supplies go with each mill.

Record of Bids and Deposits

In the court record, names, lots, bids and deposits in the order named are as follows: Harold F. White, Lot 1, Chestertown, $1,000, $100; R. A. Couse, Lot 2, Circleville, $200,000, $20,000; E. P. Lannan, Lot 3, Noblesville, 4, Quincy, 7, S. P. & H. Contract, $1,115,000, $111,500; E. N. Mendelson, Lot 5, Wilmington, $250,000, $25,000; N. H. Carpenter, Lot 6, Winchester, $20,000, $2,000; Harold F. White, Lot 8, Barberton, Lot 11, Lignistra, Ironsides, $600, $60; National Orphans' Home, Lot 9, Tiffin, $1,500, $150; Mid West Box Company, Lot 10, office furniture, $200, $20. The total bids and deposits amounting to $1,588,300 and $158,830.

Other individual bidders, in order, were: Sidney Frohman, Lot 3, Noblesville, $235,000, $25,000; Piqua Straw Board Company, Lot 7, S. P. & H. contract, $350,000, $35,000; K. S. Smith, Lot 8, Barberton, $205, $21.

What is included in the various plants is given in the following: Circleville, Ohio, a strawboard and chipboard mill with two machines, daily capacity 125 tons, 48 acres of land; Noblesville, Ind., a strawboard and chipboard mill, two machines, capacity 55 tons, 148 acres of land; Quincy, Ill., strawboard and chipboard mill, seven machines, capacity 125 tons, recent additions made by receivers; Wilmington, Ill., liner board and chipboard mill, capacity 45 tons, additions and water power by receiver; Piqua plant, strawboard, pulp lined board, newsboard, chipboard, capacity 10 tons; Winchester, Va., chipboard and newsboard, one machine, capacity 15 tons, 18 acres of land; Tippecanoe mill, dried strawboard, matchbox board, pulp lined board, capacity, 12 tons.

In the Piqua and Tippecanoe properties are involved a contract dated Feb. 4, 1921, between the company and the firm of Smith, Palmer & Hawkins to purchase the plants for $672,413.24, together with 1,500 shares of the par value of $100 of the capital stock of the Queen City Paper Company, of Cincinnati, Ohio. There are ten notes unpaid, each for $63,610.82, one note falling due each year beginning July 1, 1923 and ending July 1, 1932. Also two notes, each for $18,152.52, one due July 1, 1933, and July 1, 1934, all notes bearing 6 per cent interest.

In Lot 11, the Lignistra Fibre Products Company, is involved 750 shares of the capital stock, par value $100; 517 bonds par value $1,000, dated July 1, 1922, Series B, Second Lien Bonds issued by the Ironsides Board Corporation. Interest is due from date of issue.

Thirty-three acres of real estate in Tiffin, Seneca County, Ohio, was purchased by the National Orphans' Home, an organization understood to promote and realize the ambition of the late Ohio C. Barber.

The office furniture in the office in the Conway Building, which originally cost $1,120, was disposed of to the Mid-West Box Company for $200.

It was in July of 1920 that the Mid-West Box Company, acquired a controlling interest in the American Strawboard Company and operated jointly until, upon petition of the bondholders, a receiver was appointed. The Mid-West company will continue to occupy the quarters in the Conway Building.

The North Star Strawboard Company, of Quincy, Ill., was incorporated to operate the Quincy plant. It has a capital of $250,000 and the incorporators are J. Paul Brady, A. W. D. Weiss and Edward P. Lannan.

News of the Kalamazoo Trade

[FROM OUR REGULAR CORRESPONDENT.]

KALAMAZOO, Mich., August 6, 1923.—The Allied Paper Mills and the MacSimBar Paper Company of Kalamazoo and Otsego have closed a contract with the Chapman and Struble Detective Agency of Kalamazoo, thereby securing protection for concerns and employees alike.

The commodious and well appointed general offices of the Allied Paper Mills, located on Lake street, are now in the hands of interior decorators and will be greatly improved as a result. Another betterment much appreciated at the mill is the paving of Lake street past the mill property and through to Portage street. This will not only give direct access to the city, but will also eliminate a great deal of dust and dirt, which for years has made the street a poor one to ride or drive over.

Officials and employees of the Michigan Carton Company, Battle Creek, were guests Sunday of W. I. Fell, president of the company, at a dinner served at the Gull Lake Hotel. The party numbered 50 guests in all.

H. E. Stratton, well known among the mills of the West, has been appointed representative for the Becker Woodpulp Company of America, with headquarters at Kalamazoo, Michigan.

Casein Production on Increase

[FROM OUR REGULAR CORRESPONDENT.]

WASHINGTON, D. C., August 8, 1923.—The casein production from skim milk for the year 1922 was 6,907,000 pounds, according to the Department of Agriculture. This amount was produced by 74 factories. The production for the first quarter of 1923 as reported by 92 factories was 2,037,000 pounds, or an average of 22,000 pounds per factory, while the production for the same quarter of 1922 from 64 factories was 1,166,000 pounds, an average of 18,000 pounds per factory. This shows that there was a large increase in the production of casein, and in the amount produced per factory as well as nearly a 50 per cent increase in the factories which have begun making casein since the beginning of the year.

Established 1886

Cooperation

COOPERATION between buyer and seller at all times is extremely desirable and highly commendable. We are cooperating now as we have in the past, in fact ever since our organization, thirty-seven years ago.

Our efforts are not spasmodic nor are our practices novel. Experience spells ability, and ability means reliability. You ought to know in advance what the policy of the other fellow will be in a given situation. Our past is an open book; it is your assurance of our cooperation.

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CHICAGO WATCHES IN VAIN FOR SPURT IN BUSINESS

Prices of Paper Stocks Remain at About the Same Level as Last Week but Old Paper Market Becomes a Bit Firmer —Trade Finds Returned Merchandise Rule Working Well—Bradner Smith & Co. Building Nears Completion—Cement Industry Considering Use of Paper Bags—Paper Men Attended Funeral of Thomas J. Beckett —Brief Items of Trade Interest.

[FROM OUR REGULAR CORRESPONDENT.]

CHICAGO, August 6, 1923.—The paper trade in the great western Metropolis continues to be as uninteresting as it has been for the past few weeks. No sudden spurt, even though for a very brief spell, seems to make itself known to relieve the monotony of the summer's dull season. Nor does an occasional big order show its head.

Several Chicago paper houses point out the fact that they look upon this mid-summer slack period as a condition much worse than it really is. They are prone to compare it with the busy season of late winter and spring and, when sales drop off considerably below the level maintained during those prosperous times, they begin to become alarmed. A note of optimism was detected in every office for the paper industry of Chicago is looking forward to an early resumption of business of the kind that piles up the turnover figures at the end of each month.

Of course, there are some branches of the trade which are not experiencing much of a change in demand right now. One of these is the vegetable parchment. This line, going principally to creameries for the wrapping of butter and similar foodstuffs, maintains a steady market practically all the year. The mills are kept running to capacity and some are even building new ones to better take care of the demand.

Prices of paper stocks, with the exception of old papers, are holding at about the same levels as last week. Naturally where the demand is light, price changes are less apt to be made, and if any, they would no doubt be down instead of up. However, the old paper market is reported as becoming a little firmer and prices have advanced on twelve specific items ranging from two to about seven per cent. These changes are on Blanks, Ex. No. 1 Manila, No. 1 Manilas, Folders News (over issue), Mixed Papers, Straw Clippings, Binders Clippings, New Kraft Cuts and Roofing Stock, No. 1, 2, 3 and 4.

Returned Merchandise Rule Works Well

A rule adopted by the Chicago paper merchants which concerns the return of merchandise from purchasers is reported to be working out very satisfactorily. It has been the means of cutting down considerably the sending back of paper. The rule stipulates that the customer who wishes to return some stock he has bought must write first for permission giving his reasons. It used to be that these customers just sent it back and explained afterwards or quite often they ordered the merchant to call for it again. This practice entailed a great deal of unnecessary expense and also much friction between seller and buyer. Upon its return to the merchant's establishment this paper had to be unwrapped and handled again to be put back in stock. So, by the inauguration and enforcement of this rule, the paper industry of Chicago has less misunderstandings and consequently lower expense and more harmonious dealings with their customers.

R. Wadsworth Expecting Big Activities

R. Wadsworth, of Bradner Smith & Co., 175 W. Monroe street, gives a brief summary of the paper market for the Windy City in these words: "Things were pretty busy in the late winter and spring and by a comparison with those periods, business now seems to be very quiet. I think we will have good business this fall. There is one consolation in the paper industry and that is that we don't have the radical ups and downs which are so grievous in other industries. The mills right now are not doing very much."

Bradner Smith Finishing New Building

The new building which Bradner Smith & Co. started some months ago is nearing completion and the company expects to be ensconced therein within another month. This edifice is adjacent to the present two warehouses on Desplaines street at Van Buren. The address will be 333 S. Desplaines street. The office and sales room will be on the top floor and will occupy a space 100 by 150 feet. In all, the building is 205 by 150 feet, and has a floor space of 240,000 square feet, including the basement, which is also to be used for the storage of paper stocks. In the rear is a driveway 22 by 200 feet. Just one block away is located the station of the elevated railway. Street cars pass the doors on both Desplaines and Van Buren streets. The Bradner Smith & Co., states that this will be one of the largest paper houses in the business under one roof.

The firm is one of the oldest paper houses in Chicago. It was founded in 1852 by J. Bradner Smith and George C. Smith who started in a place on South Water street. After the Chicago fire it was moved to a location at Wabash avenue near Lake street from which establishment the firm was forced to make deliveries by ox carts during the epidemic. Later the business was moved to 110 Madison street and then to 119 Monroe street where it was continued until the property was taken over for the First National Bank in 1902. At that time the firm moved to its present store at 175 W. Monroe street. The new site will comprise the sixth one which Bradner Smith & Co. have occupied since its inception.

Cement Industry's Paper Bag Agitation

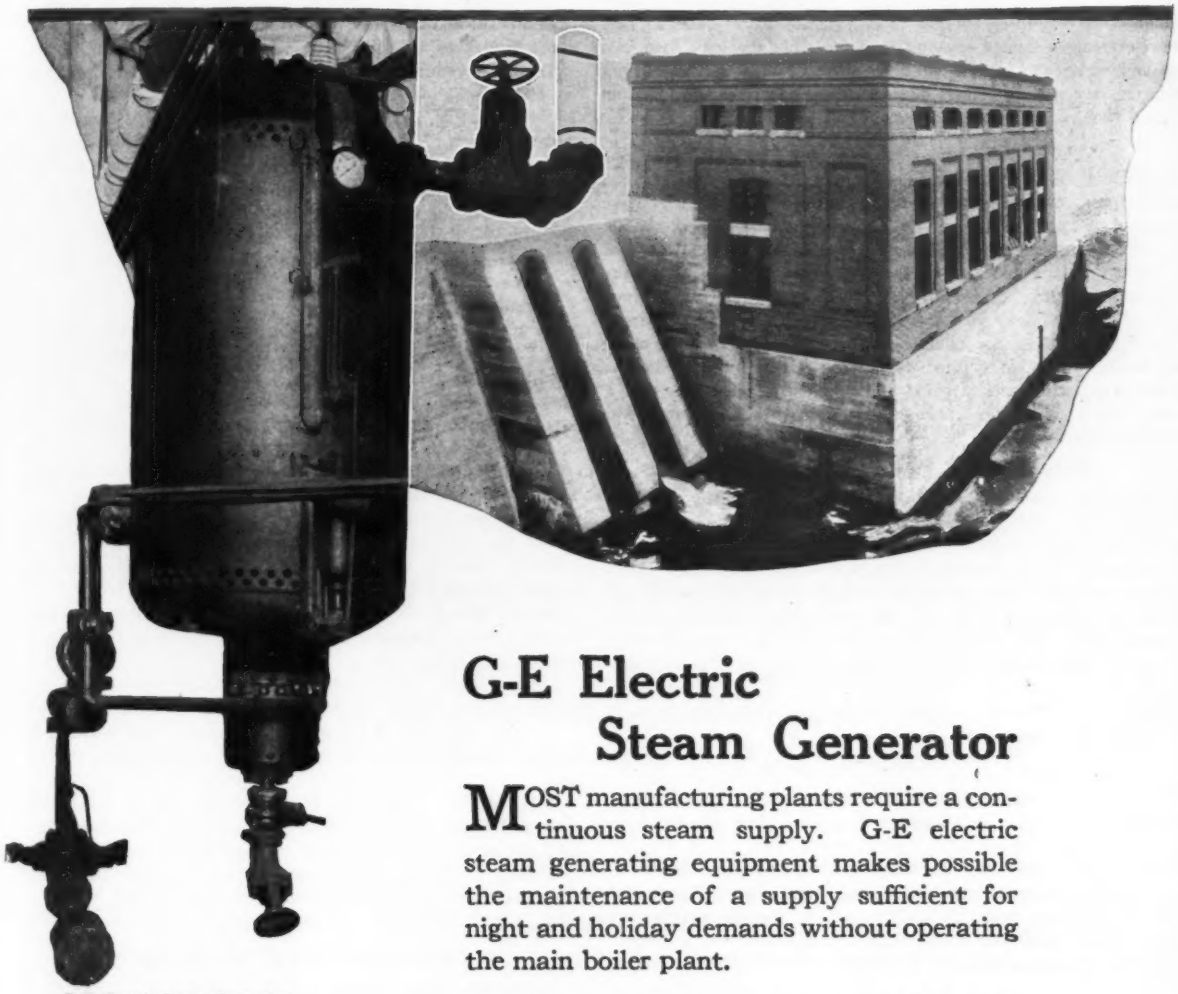
In and around Chicago there is much discussion and considerable agitation for the adoption of the paper sack for the shipment of Portland cement instead of the cloth sack which has been used most for the past years. Retail dealers of building supplies calling at the offices of the Portland cement manufacturers in this city are keenly interested in the universal change to the paper bag for several reasons. It is stipulated by the cement producer that the cloth sack must be returned to the mill for use in shipping other cargoes. To insure its safe return the manufacturer charges the dealer a certain price for each sack, this amount to be refunded to the dealer when the sack is received back at the plant in first-class condition. The dealer, in turn, when he sells the sack of cement must also tax his customer an equal amount in order that he might not sustain a loss in case the sack becomes damaged or destroyed while out of his yard. The keeping of records for this end of the business is an additional expense and, inasmuch as a careful inspection of sacks both at the dealer's warehouse and the manufacturer's plant often discloses an unsuspected damage, there is much dissatisfaction and loss all around every year. Therefore, it is recommended that a paper sack be used, to hold 47 pounds of Portland cement instead of 94, so that the expense of the cloth sack will be eliminated, especially in the handling of it for return to the mill. The paper sack would of necessity have to be puncture-proof and moisture-proof for it must be used under all weather conditions and stand shipment in freight cars often for long distances. Signs indicate that the adoption of the paper sack is not very far off.

Feels Christmas Box Demand

With the C. L. La Boiteaux Company a marked business improvement is already apparent. The firm has felt the slackness of the past thirty to sixty days just as other houses have, but a turn for the better is in view. The box business for Christmas goods

(*Continued on page* 36)

From Waste Water Power to Useful Steam



G-E Electric Steam Generator utilizing surplus power in pulp and paper industry

G-E Electric Steam Generator

MOST manufacturing plants require a continuous steam supply. G-E electric steam generating equipment makes possible the maintenance of a supply sufficient for night and holiday demands without operating the main boiler plant.

Utilizing as it does water power which would ordinarily be wasted, the electric steam generator effects a substantial reduction in operating expenses.

G-E engineers will be glad to show you how to obtain full value from your power plant by installing this equipment, which can be furnished in capacities up to 30,000 kilowatts.

General Electric Company
Schenectady, N. Y.

438-731

GENERAL ELECTRIC

CHICAGO WATCHES FOR BUSINESS SPURT

(*Continued from page* 34)

is starting and like every holiday demand it is contemplated to run pretty strong before it reaches the peak. In the winter knit goods industry preparations are going forward rapidly in getting the products on the market. A large volume of boxes are used in it each year which naturally goes to the trade handling this class of merchandise. It is opening up now in a moderate way. Lithographers likewise create a limited demand for boards but the very nature of that end makes the sales more or less steady right along. Prices on boards are getting firmer, even showing some inclinations of an upward trend.

Canning Industry Has Had Busy Season

According to R. H. Melsome, of the Mid West Box Company, big producers of corrugated and solid fibre boxes, activities have proceeded quite satisfactorily. In fact, trade has been good. While July and August are usually dull months, the canning industry is at its height then and inasmuch as the Mid West concern supplies the containers for these canners it is to be expected that a generous share of the total sales comes from that direction. But it is dropping off now because the canning season is rapidly nearing a close. This business will be replaced during the fall and winter months by other industries such as electrical appliances and articles of a similar nature ordinarily packed for retailing in corrugated and solid fibre boxes.

Midwest Holds Three Day Convention

A three-day convention of the Mid West Box Company was held at Grand Beach, Mich., beginning Thursday, August 2 and extending through Saturday, August 4. It was a combination sales convention and conference of department managers, superintendents, plants managers and all having anything to do with the production and sale of the company's lines. Besides the strictly business side of the event, there were sports indulged in including a baseball game and a golf tournament. Officers of the Mid West Box Company are as follows: W. H. Fairchild, president; J. P. Brunt, vice-president; E. R. Hackens, second vice-president and secretary, and J. E. Cookson, treasurer.

Seaman Has Electric Display Case

Right inside the main entrance to the offices of the Seaman Paper Company, at 208 S. La Salle street, a long plate glass case has been placed on the wall about level with a man's head. In it are displayed a dozen samples of color printing work on various grades of paper. Inside, along the top, are several small electric lights that throw a soft glow upon the objects within, thereby greatly enhancing their attractive presentation. Practically every person coming into the offices takes the opportunity to examine the samples.

Thomas J. Beckett Passes

Thomas J. Beckett, president of the Thomas J. Beckett Paper Company, Hamilton, Ohio, died a few days ago. Mr. Beckett was one of the best known paper men in the entire industry. His passing deprives the trade of one of its ablest leaders. Several of the wholesale paper merchants of Chicago attended the funeral services on Monday of this week.

Activities of the Paper Trade

Joseph X. Gubbins, who was appointed manager of the Chicago office of The Paterson Parchment Paper Company, of Passaic, N. J., on July 1, finds his new position quite to his liking and already has become acclimated to his position.

Robert B. Harbison, formerly manager of the Chicago office of The Paterson Parchment Paper Company, is now western sales manager for the International Paper Company, with offices in the Conway Building.

Alexander Thomson, vice-president of the Champion Coated Paper Company, 111 W. Washington street, is now spending his vacation at Harbor Springs, Mich. Logan G. Thomson, secretary of the Champion company is also away on his vacation, having gone to Charlevoix, Mich.

A. D. Aiken, of the Inter-City Paper Company, St. Paul, Minn., was in Chicago a couple of days last week after having spent a most enjoyable vacation with his mother in Canada.

Bob Butterworth, of the Champion Coated Paper Company, was in Minneapolis and St. Paul, Minn., last week.

E. A. Rohrer, of the Empire Paper Company, Chicago, left last Saturday with his family for a vacation in the Wisconsin woods.

G. E. Runcie, of the Chicago office of the Champion Coated Paper Company, has just returned from his vacation, a portion of which was spent at the mill in Hamilton, Ohio.

Chicago had another caller last week in the person of E. R. Jones, of the Kansas City Paper House, Kansas City, Mo., who spent a couple of days here.

Another distinguished visitor. B. M. Anderson, of the Carpenter Paper Company, Omaha, Neb., was also here for a short stay.

J. L. Fearing, general sales manager of the International Paper Company, was in the city two days last week. Mr. Fearing is also president of the Paper Salesmen's Association and, between his two positions, is kept exceedingly busy. He has his headquarters in New York City.

R. Wadsworth, of Bradner Smith & Co., has left his desk for a few weeks' outing in northern Wisconsin.

J. B. Jones, of the Western Newspaper Union, was in Chicago for a few days last week calling on some of the trade.

Lyman Dwight, of Dwight Bros., Milwaukee, Wis., has just returned from a three weeks' vacation.

H. B. Law, of Dwight Bros. Company, Chicago, has just returned from a vacation in California. He was away for three weeks.

Henry Hagen, well known in the Chicago paper trade, is now associated with the Berkshire Paper Company of this city.

Another vacationist is George S. Johnson, of the Western Paper Company, of Omaha, Neb., who is in the northern part of Wisconsin.

J. H. McGuirk, office and credit manager of the West Virginia Pulp and Paper Company, Chicago, was taken home from the hospital the other day after remaining there a week because of illness.

William H. Smyth, general manager of the West Virginia Pulp and Paper Company, is also on his vacation.

Foreclosure Sale of Mill Property

NASHVILLE, Tenn., August 6, 1923.—Horace W. Hawkins, trustee, will on August 22 at 12 o'clock noon at the County Court House here sell, at foreclosure sale, certain property of the Nashville Pulp and Paper Company, including the following:

A fourteen acre tract of land, being a part of the Old Hickory Powder Plant at Jacksonville, Tenn.

All easements, rights of way, water rights, riparian rights, etc., titles and interests in and to real estate of said company.

All offices, shops, factories, mills, etc., on aforementioned property.

The pulp and paper mills and plant of company with all machinery and equipment.

Barrett Co. Buys McArthur Mill at Joliette

JOLIETTE, Que., July 31, 1923.—The Barrett Company, operating paper mills in the United States at Peoria, Illinois; Latrobe, Pa.; and Elizabeth, N. J., has taken over the Alex. McArthur & Co.'s mill at Joliette, P. Q., Canada. They are making sheathing, roofing and heavy papers.

Exact Micrometer:

Accurate, correct at all points, more easily read than any other make.

Automatic Scales:

For weighing Paper, Box Board and Roofing Felt.

Electric Tester:

Uniform pressure at all times, ten times the work with one-half the effort. Can not be manipulated, does not make mistakes.

Write for Life Size Circulars

E. J. Cady & Company

326 W. Madison St. **CHICAGO, ILLS**

New York Trade Jottings

Fred Cherrie, of Castle & Overton, 200 Fifth avenue, is in Vermont with his family on a vacation.

* * *

The Marquardt-Hewitt Corporation, packers of papermakers' supplies, announced last week that Irven Joseph had resigned his position with it.

* * *

George Gair, of the Robert Gair Company, went to Niagara Falls on Tuesday to attend a conference on the proposed Paper Industries Exchange.

* * *

The Perkins & Goodwin Company has filed notice with the Secretary of State at Albany, N. Y..of a reduction in its capital stock from $1,500,000 to $1,200,000.

* * *

The New York and New England Divisions of the Salesmen's Association of the Paper Industry will hold a luncheon meeting at the City Club at 12:30 o'clock, Monday noon, August 13.

* * *

W. E. Shuttleworth & Co., bags, paper and boxes, announce their removal from the old Shuttleworth, Keiller headquarters to the Shuttleworth Building at West Broadway, Franklin and Varick streets.

* * *

O. M. Porter, of the American Paper and Pulp Association, will be gone from the New York offices at 18 East Forty-first street for about a month, in which he will visit a number of mills and take his vacation.

* * *

Edward E. Wright, of Miller & Wright; Spencer Lathrop, of Lasher & Lathrop, and Paul E. Vernon, of Paul E. Vernon & Co., are the representatives of the paper industry on the Committee of One Thousand, which has had charge of the petition for more subways.

* * *

Herbert P. Brock, of the Waste Material Trading Company, returned to New York last Friday after a flying trip to Europe. Although he was gone only a month, Mr. Brock visited Belgium, Holland, France and Switzerland, making a study of business conditions in those countries.

* * *

The Shuttleworth Carton Company, Inc., has purchased from W. E. Shuttleworth and Company, the folding box business formerly conducted by Shuttleworth, Keiller & Co. and Kolb Carton Company, Inc. The equipment has been installed at 474, 476 and 478 West Broadway, former headquarters of Shuttleworth, Keiller & Co.

* * *

Sir Frederick Becker, president of the Becker Woodpulp Company of America, Inc., 501 Fifth avenue, is now on his way to Canada from his home in England, according to information received in this city. He is well known for his studies of the manufacture of paper from straw and it is understood he will do some research work in regard to this after he reaches America.

* * *

The United States Mortgage and Trust Company, trustee for the sinking fund, announces that the Carthage Sulphite Pulp and Paper Company will receive tenders for the sale of $18,093 first mortgage bonds to exhaust the balance now in the sinking fund. Tenders will be received up to noon August 17. The trust company also announces that it has received $11,200 from the Montana Power Transmission Company to be used for the purchase of first mortgage bonds of the power company.

* * *

J. H. Cashman has been appointed sales representative for the Fitchburg Paper Company, Fitchburg, Mass., manufacturer of high grade book papers, which now propose to enter the book market throughout the United States, on sheet and roll business, as well as offset papers. This concern has seven paper machines, and is well equipped to enter this field. Mr. Cashman has also arranged to continue handling the Pepperell Card and Paper Company's business, as he has for several years past, and headquarters will continue, as at present, Room 1121, 200 Fifth avenue.

Pulp Men Qualify as Golf Experts

Forty-five of the wood pulp men of this city went to the Westchester Biltmore Country Club at Rye on Wednesday, July 25, where they enjoyed an excellent dinner and a spirited golf competition. The winners at golf were:

Sandy Calder of the Union Bag and Paper Corporation—Low gross prize; 36 holes with a score of 154.

Red West of Acer & Co.—Low net prize with the score of 157. His handicap was 20 making his net score 137.

First Division winners—W. H. Anders of Perkins-Goodwin Company, low gross prize with 83; Stanley C. Willey of Nilsen Lyon Company, low net with a score of 89, less handicap of 17, making net score of 72.

Second Division winners—K. Atterbury of Mead, Patton Company, low gross with 96; George Horton of Pagel, Horton Company, low net with score of 99, less handicap of 23, making net score of 76.

Third Division winners—Russell McCandless of the Riordan Company, low gross with 116; G. Asplund of the Swedish Pulp Association, low net with 131, handicap 40.

Following are the complete scores:

First Division

	Morning Round			Afternoon Round			36 Hole Play		
	Gross	Hdp.	Net	Gross	Hdp.	Net	Gross	Hdp.	Net
1. Anders, W. H.....	83	13	70	92	13	79	175	26	149
2. Calder, Sandy.....	79	5	74	75	5	70	155	10	144
3. Overton, C. B.....	100	16	84	94	16	78	194	32	162
4. Oliphant, G. W.....	93	16	77	110	16	94	203	32	171
5. Patten, J. F.....	96	20	76	95	20	75	191	40	151
6. Starr, Harry.....	91	15	76	96	15	81	187	30	157
7. West, Red.....	78	10	68	79	10	69	157	20	137
8. Willey, Stanley C..	89	17	72	89	17	72	178	34	144

Second Division

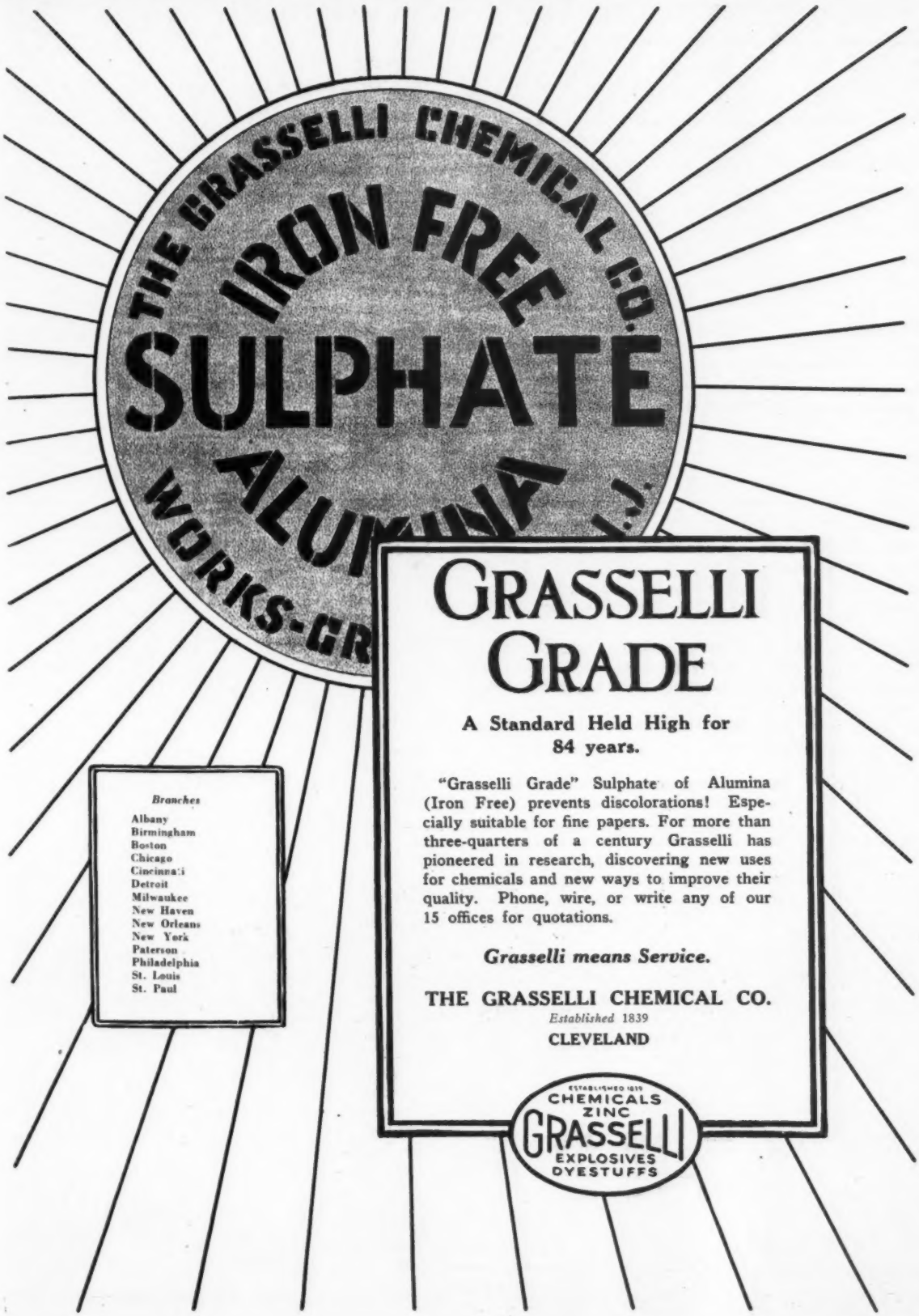
	Morning Round			Afternoon Round			36 Hole Play		
	Gross	Hdp.	Net	Gross	Hdp.	Net	Gross	Hdp.	Net
1. Atterbury, K.....	96	20	76	99	20	79	195	40	155
2. Droudt, Harry.....	98	21	77	98	21	77	196	42	154
3. Gottesman, D. S....	114	27	87	117	27	90	231	54	177
4. Gottesman, Saul....	124	27	97	124	27	97	248	54	194
5. Howell, R. W.....	126	30	96	123	30	93	249	60	189
6. Horton, George.....	99	23	76	...	...	...	...	...	...
7. Krugner, Robert.....	111	30	81	103	30	73	214	60	154
8. London, W.....	135	30	105	135	30	105	270	60	210
9. Pagel, A. J.....	105	22	83	94	22	72	199	44	155
10. Scharin, H. V.....	101	23	78	94	23	71	195	46	149
11. White, T. J.....	122	35	87	113	35	78	235	70	165

Third Division

	Morning Round			Afternoon Round			36 Hole Play		
	Gross	Hdp.	Net	Gross	Hdp.	Net	Gross	Hdp.	Net
1. Asplund, G.....	131	40	91	...	...	...	...	...	...
2. Anderson, J.....	151	40	111	...	...	...	...	...	...
3. Enders, Fred.....	152	40	112	...	...	...	...	...	...
4. Hylin, O.....	151	55	96	145	55	90	296	110	186
5. Johanneson, Nils....	136	45	91	132	45	87	268	90	178
6. McCandless, Russell.	116	45	71	135	45	90	251	90	161
7. Sparre, P.....	157	55	102	...	...	...	...	...	...
8. Wilson, W. J.....	144	45	99	118	45	73	262	90	172
9. Sleicher, A. G.....	122	30	92	115	30	85	237	60	177
10. Robinson, C. P.....	141	45	96	...	...	...	...	...	...
11. Post, L. D.....	103	27	76	105	27	78	208	54	154

Technical Index Ready

Index to Technical Section, for Vol. 75, July to December, 1922, and Vol. 76, January to July, 1923, are available at 10 cents each.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A Standard Held High for 84 years.
"Grasselli Grade" Sulphate of Alumina (Iron Free) prevents discolorations! Especially suitable for fine papers. For more than three-quarters of a century Grasselli has pioneered in research, discovering new uses for chemicals and new ways to improve their quality. Phone, wire, or write any of our 15 offices for quotations.
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PAPER INDUSTRY SUMMARY FOR THE MONTH OF JUNE

American Paper and Pulp Association Issues Data on Production, Shipment and Stock of Paper Mills in United States —Production of All Grades Was 367,591 Tons, and Shipments Totalled 357,071 Tons—Stock on Hand at End of Month, 154,950 Tons—Wood Pulp Summary Shows Production of All Grades to Be 167,115 Tons and Stock on Hand June 30, 86,865 Tons.

The following tabulation is a preliminary report of total production, shipments and stocks of paper mills in the United States.

The American Paper and Pulp Association has undertaken the collection, compilation and publication of these periodic reports in co-operation with its affiliated associations and through direct contact with individual mills.

Associations assisting in the presentation of these data are the Binders Board Manufacturers' Association, Wrapping Paper Manufacturers' Service Bureau, Writing Paper Manufacturers' Association, Cover Paper Manufacturers' Association, Tissue Paper Manufacturers' Association and, in addition, the News Print Service Bureau.

It is intended that a more complete report for the month of June be issued at a later date.

The number of mills as given in the statistical table following is taken as the number usually operating on that grade. It is to be distinguished from the number of concerns or companies reporting.

Data on news print production as compiled by the News Print Service Bureau and summarized for the purpose of this report does not include the classification "Standard News" and it is therefore omitted from this report. Standard News is included in the classification "Newsprint" and therefore this report gives the production of news print in the United States.

Tonnage Summary

GRADE	Number of Mills	Stocks on hand first of month. Net tons	Production. Net tons	Shipments. Net tons	Stocks on hand end of month. Net tons
News Print:					
*June, 1923	65	18,133	133,692	132,311	19,514
June, 1922	82	24,781	127,230	128,644	23,367
June, 1921	92	31,198	87,724	92,293	26,629
June, 1920	91	22,823	130,380	129,213	23,990
June, 1919	74	27,084	114,896	115,865	26,115
June, 1918	66	26,122	107,228	107,189	26,161
Book (M. F., S. S. C. and Coated):					
*June, 1923	41	22,690	43,548	41,625	24,613
June, 1922	92	39,491	83,517	81,552	41,456
June, 1921	92	39,639	53,934	53,320	40,253
June, 1920	93	22,302	94,957	95,160	22,099
June, 1919	89	36,061	71,938	71,813	36,186
June, 1918	94	32,738	76,726	78,757	30,707
Paperboard—total (Straw, Fibre, Leather, Chip, Box, etc.)					
*June, 1923	82	20,267	86,817	86,153	20,931
June, 1922	224	65,702	183,759	181,982	67,479
June, 1921	238	67,979	130,177	130,059	68,097
June, 1920	254	42,818	215,131	220,089	37,860
June, 1919	240	61,872	152,957	152,811	62,018
June, 1918	230	39,867	170,209	171,446	38,630
Boxboard (included in Paperboard):					
*June, 1923	47	8,909	56,432	55,688	9,653
June, 1922	129	31,372	134,617	133,841	32,048
June, 1921	137	32,638	95,964	95,413	33,189
June, 1920	149	17,308	158,182	159,129	16,361
Wrapping, (Kraft, Manila, Fibre, etc.):					
*June, 1923	80	34,036	53,294	49,337	37,993
June, 1922	146	70,906	68,371	68,018	71,259
June, 1921	151	59,503	50,332	48,696	61,139
June, 1920	150	25,655	72,987	76,392	21,710
June, 1919	169	75,865	60,656	67,609	68,912
June, 1918	153	43,128	65,262	70,983	37,407
Bag (All Kinds):					
*June, 1923	21	5,738	7,830	6,783	6,785
June, 1922	46	3,304	16,370	15,664	4,010
June, 1921	39	3,392	6,255	6,488	3,159
June, 1920	44	2,949	20,262	20,549	2,662
June, 1919	44	5,258	14,501	15,236	4,523
June, 1918	32	2,660	14,489	13,965	3,184
Fine (Writing, Bonds, Ledgers, etc.):					
*June, 1923	86	34,397	26,216	25,067	35,546
June, 1922	103	36,985	31,291	29,602	36,674
June, 1921	107	41,143	17,511	17,846	40,808
June, 1920	113	28,034	34,121	34,883	27,272
June, 1919	113	40,257	27,122	25,481	41,898
June, 1918	97	26,632	34,381	35,772	25,241
Tissue (Toilet, Crepe, Fruit Wrappers, etc.):					
*June, 1923	42	6,904	9,148	8,555	7,497
June, 1922	95	9,117	15,534	13,884	10,767
June, 1921	95	7,321	13,304	12,569	8,056
June, 1920	100	5,889	17,165	17,544	5,510
June, 1919	90	9,740	12,867	13,580	9,027
June, 1918	90	5,423	12,846	12,907	5,362
Hanging (No. 2 Blank, Oatmeal, Tile, etc.):					
*June, 1923	8	926	3,650	3,199	1,377
June, 1922	26	6,091	5,011	3,948	7,154
June, 1921	23	10,552	3,109	4,093	9,538
June, 1920	21	995	8,861	8,744	1,112
June, 1919	21	5,318	5,761	3,954	7,125
June, 1918	19	5,625	4,584	5,969	4,240
Felts and Building (Roofing, Sheathing, etc.):					
*June, 1923	13	2,107	9,126	8,909	2,324
June, 1922	47	10,735	36,205	37,586	9,354
June, 1921	54	10,150	24,945	24,567	10,528
June, 1920	55	10,636	35,264	34,000	11,900
June, 1919	50	8,309	23,852	23,131	9,030
June, 1918	42	5,259	24,582	24,050	5,791
Other Grades (Specialties not otherwise classified):					
*June, 1923	48	10,048	13,771	13,155	10,664
June, 1922	105	18,617	26,047	25,118	19,546
June, 1921	99	20,242	16,366	16,028	20,580
June, 1920	94	16,958	28,194	30,968	14,184
June, 1919	72	14,292	13,430	13,868	13,854
June, 1918	43	4,821	21,684	21,291	5,214
Total—All Grades:					
*June, 1923	..	144,430	367,591	357,071	154,950
June, 1922	..	285,729	593,335	585,998	293,066
June, 1921	..	291,089	403,657	405,959	288,787
June, 1920	..	179,059	657,322	668,082	168,299
June, 1919	..	284,056	497,980	503,348	278,688
June, 1918	..	192,275	531,991	542,329	181,937

*Preliminary.

Wood Pulp Review for June, 1923

The American Paper and Pulp Association, in publishing this preliminary report of pulp production, shipments and stocks has received the assistance of the United States Pulp Producers Association in the form of data, summarizing the operation of its members.

The totals shown by grades have been secured by combining the United States Pulp Producers' Association's results with those of mills reporting directly to the American Paper and Pulp Association.

That there may be no break in the data which has been supplied by the Federal Trade Commission for a number of years, a more complete report for the month of June will be issued at a later date.

The statistical table following gives the number of mills reporting stocks as of June 1, 1923, and of June 30, 1923, production during the month of June, amounts used by mills producing same with amounts shipped to concerns other than those producing it.

(*Continued on page* 42)

Your paper mill's power plant within the covers of a book—

WHERE can you look for an accurate record of the cost of generating steam—the cost of producing power and the steam consumption of different departments?

Test runs, manufacturers' claims, and theoretical efficiencies are but a vague guide. Accurate knowledge—facts that will enable you to steadily cut power costs—must be based on *continuous* records—records that are supplied essentially by Republic Flow Meters and put into tangible, easily understood form by the system of power plant cost accounting that has been developed by prominent accountants working in collaboration with Republic engineers.

Continuous records summarized on specially prepared forms put every detail of steam production and consumption within the pages of a book. These records will enable you to (1) accurately apportion steam charges (2) check, and therefore improve, the efficiency of your equipment, and, as a result, (3) lower manufacturing costs.

Bulletin 14, "Power Plant Cost Accounting," shows how power plant records form a link between the power plant and the main office. Bulletin 12, "The Measurement of Steam," describes the breadth of application of *the only electrically operated flow meter.*

Republic Flow Meters Company, 2232 Diversey Parkway, CHICAGO

ONLY ELECTRICALLY OPERATED

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What *is* power plant cost accounting?

THERE is nothing involved about power plant cost accounting. It is merely a sensible, systematic setting down of important data on simple forms. These forms, used in connection with the readings of flow meters and other easily acquired data, cover every phase of steam generation and distribution. The extent of the system depends upon the size of the plant. It is profitable in plants of all sizes. This is fully told in Bulletin 14.

Branch Offices

New York	Detroit	Minneapolis
Philadelphia	Denver	St. Paul
Boston	Kansas City	Seattle
Pittsburgh	Dallas	Cincinnati
Birmingham	San Francisco	St. Louis
	Portland, Ore.	

Dominion Flow Meters Co., Toronto, Canada
Electro Flow Meters Co., 109 Kingsway, London W., C. 2.

PAPER INDUSTRY SUMMARY FOR THE MONTH OF JUNE

(*Continued from page* 40)

	Number of Mills	On hand first of month. Net tons	Production for month. Net tons	Used during month. Net tons	Shipped during month. Net tons	On hand end of month. Net tons
Ground Wood Pulp:						
*June, 1923	87	51,198	82,629	72,282	3,402	58,143
June, 1922	158	182,867	148,328	128,712	9,747	192,736
June, 1921	165	223,089	80,637	82,467	7,890	216,069
June, 1920	167	152,973	138,949	126,886	13,696	151,340
June, 1919	162	195,080	121,659	109,892	7,010	199,837
Sulphite, News Grade:						
*June, 1923	36	12,175	37,939	38,743	1,525	9,846
June, 1922	61	20,604	59,734	53,263	5,614	21,461
June, 1921	63	22,250	42,194	35,211	6,478	22,755
June, 1920	64	15,553	73,935	63,824	11,194	14,470
June, 1919	63	26,690	57,709	49,377	8,933	26,089
Sulphite, Bleached:						
*June, 1923	12	2,573	13,435	11,365	1,674	2,969
June, 1922	33	9,756	38,300	24,756	12,076	11,224
June, 1921	31	16,614	27,324	17,809	9,661	16,468
June, 1920	32	4,296	50,741	27,342	22,209	5,286
June, 1919	31	16,431	42,185	21,761	20,145	16,710
Sulphite, Easy Bleaching:						
*June, 1923	5	1,070	4,100	4,132	145	893
June, 1922	10	1,686	4,721	4,274	841	1,292
June, 1921	10	1,294	5,856	3,280	3,196	674
June, 1920	7	858	8,135	5,322	3,102	569
June, 1919	8	2,919	5,552	3,875	2,117	2,479
Sulphite, Mitscherlich:						
*June, 1923	5	579	5,136	4,009	722	984
June, 1922	7	2,175	6,061	4,236	2,028	1,972
June, 1921	7	2,097	5,726	3,460	1,988	2,375
June, 1920	7	1,805	7,407	4,292	3,618	1,302
June, 1919	7	1,792	5,915	3,692	2,953	1,062
Sulphate Pulp:						
*June, 1923	14	5,925	17,662	11,126	4,203	8,258
June, 1922	22	7,264	21,689	16,299	4,730	7,924
June, 1921	20	7,277	10,244	8,532	2,105	6,884
June, 1920	21	4,136	20,007	12,605	8,387	3,151
June, 1919	22	9,221	12,410	9,134	4,565	7,932
Soda Pulp:						
*June, 1923	7	6,511	5,997	2,696	4,110	5,702
June, 1922	29	8,000	33,770	18,971	13,501	9,298
June, 1921	27	10,390	17,232	12,208	5,239	10,175
June, 1920	26	4,146	37,136	19,847	16,868	4,567
June, 1919	27	9,033	30,656	14,785	15,926	8,978
Other than Wood Pulp:						
*June, 1923	3	183	217	168	162	70
June, 1922	5	101	656	467	125	165
June, 1921	5	205	476	439	83	159
June, 1920	5	109	805	791	97	26
June, 1919	6	146	844	547	65	378
Total—all grades:						
*June, 1923	..	80,214	167,115	144,521	15,943	86,865
June, 1922	..	232,453	313,259	250,978	48,662	246,072
June, 1921	..	286,216	189,389	163,406	36,640	275,559
June, 1920	..	183,876	337,115	261,109	79,171	180,711
June, 1919	..	261,264	277,142	213,161	62,012	263,233

*Preliminary.

Extends Drawback Allowance

[FROM OUR REGULAR CORRESPONDENT.]

WASHINGTON, D. C., August 1, 1923.—The Customs Service of the Treasury Department has announced that it has extended drawback allowance on wrapping paper manufactured by the Safepack Mills, of Boston, with the use of imported paper to provide also for allowance on wrapping paper in various forms manufactured by the same firm with the use of imported cotton and jute yarn, imported jute cloth and other imported articles.

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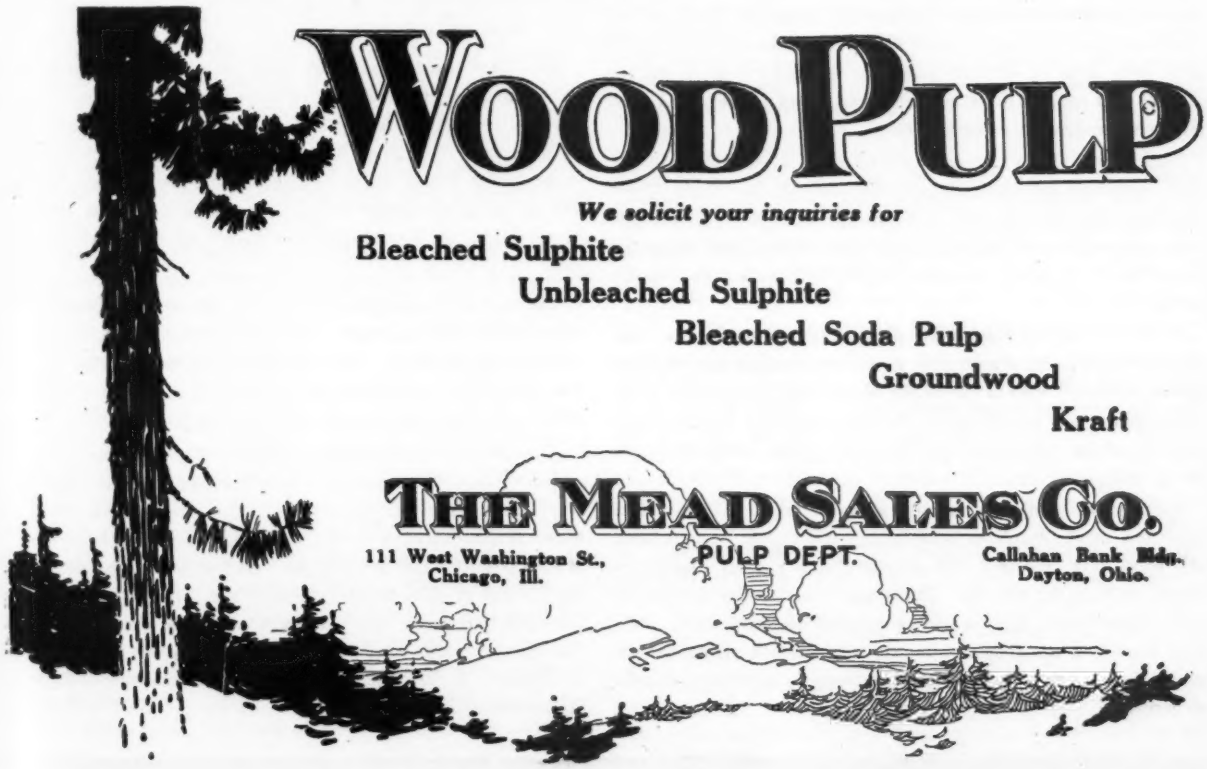

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Editorial

Vol. LXXVII New York, August 9, 1923 No. 6

HENRY J. BERGER, Editor

THE PRESIDENT

Another President has passed into history. By the time the readers of THE PAPER TRADE JOURNAL see this Warren Gamaliel Harding will be asleep in the quiet little cemetery at Marion, Ohio. For the past decade the position of President of the United States has been becoming increasingly difficult. It is almost more than one man can bear. President Harding gallantly took the world on his shoulders and died. Those who love him would not recall him if they could. He has earned the peace of eternity.

He was spendthrift of himself. No matter how tired, he was always ready with the kindly word and cordial hand. He had his faults, but he was the more beloved for them. Sometimes he hesitated, but this came through the desire to do right rather than from vacillation. He was so human that everyone felt that they knew him.

His development during the time he held office was remarkable. The man who died in San Francisco was not the same man who was nominated at Chicago. His election came at one of the most dangerous times in the world's history. What was needed then was a President who would be cautious. President Harding was careful and with a steady hand on the wheel steered the ship of state away from the dangerous shoals. Business was depressed and Europe was anxious to get what it could out of us, but the United States came through without mishap.

Later the situation changed. Participation in world affairs became necessary and the Administration devised the World Court. President Harding saw that the time for quiet had passed and went out to fight for his ideals. He took active and aggressive leadership of his party. Had he lived the next session of Congress would have felt this.

President Harding always had the greatest respect for his office. He confessed to his friends that it was hard to get used to being served before his wife at the White House table, but he said he realized that it was the office, not the man, for which this was being done. And the man in the late President always respected the office he held.

But after all it was the man that everyone loved. The man who lived in a simple American home in a typical middle western town. His house was decorated with the wooden lace work common to houses built in the nineties. The rooms were furnished with the usual collection of articles seen among middle westerners. Perhaps there is a sea shell and a vase with peacock plumes on the mantelpiece. Just such a home as so many of us remember with tenderness.

He used to sit on his porch on the hot summer evenings and his neighbors would drop in for a call. There never was anything arrogant about him. His ambition never soared so high that it carried him above his friends.

The whole paper industry has lost a friend. One of the last things the Administration did while he was at its head was to take steps to avert a Canadian embargo on the export of pulpwood. He served the paper industry faithfully, just as he served his country without stint. It is rather ironical that he died from the very thing of which he had relieved others—overwork. The newspapers that carried the accounts of his death also reported that the steel industry would put into effect the eight hour day among its employes. The late President had fought for this measure.

In spite of the great loss the country has suffered the government at Washington must go on. It is fortunate that it has a leader like Calvin Coolidge to carry along the policies of the Administration. Like his predecessor he rose from the ranks. He is a sincere believer in hard work. He says little, but when he does speak it is after he has thought completely through a problem.

His son is now working as a laborer in the tobacco fields at Northampton, Mass., while his father is taking over the duties of the most influential office in the world. There is a sound lesson for radicals and extremists in this.

President Coolidge is a modest man. He is not given to blowing his own or anyone else's horn. His policy, to quote a homely New England phrase, is "to saw wood and say nothing." This does not mean that he is not ready to listen to advice. He welcomes it, but never commits himself.

His pithy method of conversing is sometimes mistaken for brusqueness by those who do not know him, but his friends all see the kindly twinkle in his eye and the queer little twist at one corner of his mouth. Far from being a dour, forbidding character he probably has one of the keenest senses of humor of any President. He almost never laughs and seldom smiles, but when he was a young lawyer in Northampton his friends found his wit far from dull.

His mind is precise and logical. He, like the late President, always stands by his friends. He loves them although he may not say anything about it. The new President and his wife are real, true Americans, descendants of a stock which has its roots in the soil.

America will not forget the tragedy of the past week in which a country doctor's son and a farmer's son have been the chief actors. Nor will it forget the fortitude of a brave woman who became a tower of strength when for her the world had collapsed. While the Marion physician was grieving the Vermont farmer was administering the oath of office to his own boy. The kerosene lamp by which the simple ceremony was performed will shine through the ages. The doctor's words when he heard that his son was dead—"He had the interests of the people at heart"—shall become one of the great threnodies of history.

REDUCING THE CAR SHORTAGE

Assurance comes from the railroads that they will be able to move the peak traffic of the year in October with less congestion than has been experienced in years. It is promised that the car shortage will be reduced to a minimum and that the conditions relative to the handling of freight will not be such as have been experienced in recent years.

This is gratifying news to business in general and it is to be hoped that the roseate promises of the railroads will suffer nothing when they come to fulfillment.

Annually a greater burden is thrown onto the railroads and their failure to fully meet the emergency brings down upon them vigorous criticism. Not always have these criticisms been entirely justified but there have been occasions when the railroads have been plainly at fault.

A special effort has been made during the past few months to prepare for the peak traffic which occurs about the second week of October. At that time last year the railroads had a shortage of 174,000 cars.

What business suffered through that shortage can hardly be estimated but that the effect is serious appears on the face of it. The would-be buyer naturally hesitates to buy when he cannot have reasonable assurance of deliveries by a certain time. Goods tied up on the railroads, at some indefinite point, between the seller and the buyer, do the buyer and the waiting public no good. This is particularly true in respect to seasonable goods.

Robert Binkerd, vice-chairman of the committee on public relations for the Eastern railroads, has outlined the outlook and it is one that is very reassuring.

He declares that the railroads will be able to move the peak traffic of the year, and the highest they have ever been called upon to carry, with a car shortage of only 15,000. When one remembers that the shortage of cars last year was 174,000 it is easy to anticipate the improvement this year.

The new condition has been arrived at by the purchase of considerable new equipment. The roads expect to have 30,000 new cars on the lines by September 30 and about sixty additional locomotives.

Results will be watched with interest and, if the relief of railroad congestion is as evident as it promises to be, a long credit mark should be given the railroads. Everyone will benefit and the roads will be justified in feeling that they have given a real contribution to the country's prosperity.

Holland Shows Fair Paper Export

[FROM OUR REGULAR CORRESPONDENT.]

WASHINGTON, D. C., August 1, 1923.—The paper industry of Holland had a fair export trade during the month, according to report received by the Paper Division of the Department of Commerce from American Consul Anderson, at Rotterdam. The export of news print increased during May to 2,239 metric tons, as compared with 1,696 during April, Great Britain, France, and Belgium taking most of the shipments. Writing and print paper containing groundwood fell off as did also the wood free papers of this description. The export of strawboard also declined from 14,596 to 13,310 metric tons, and of wrapping paper from 1,323 to 884 metric tons.

Manufacture of Paper in Australia

MELBOURNE, July 30, 1923.—The Institute of Science and Industry of the Commonwealth of Australia has published a bulletin printed on paper made by the institute during recent semi-commercial tests. It is not inappropriate that the bulletin deals with "The Manufacture of Pulp and Paper from Australian Woods," in which it is stated that the present Australian requirements in all kinds of paper and cardboard amount to nearly 150,000 tons a year, using 120,000 tons of wood pulp. In 1921, nearly $7,000,000 was paid for the 120,000 tons imported, and there were about 120,000 tons made in Australia. Australia is now using about 70,000 tons of news print paper yearly, not a pound of which is made in Australia, and at the present rate of increase probably 100,000 tons of newspaper will be required in 1923. For other printing purposes there is required nearly 14,000 tons of much better quality paper per year, less than 2,000 tons of which is made in Australia, and almost entirely from imported pulp.

An analysis of forest conditions abroad and consideration of the rapidly increasing demand for wood pulp indicate that, within the next decade or two, Australia will probably be faced with a serious shortage of, and high prices for, paper and the paper-making materials which are now imported. By the application of simple chemical principles, the difficulties of obtaining a high yield of strong pulp from the most important Australian woods have been overcome. It has been demonstrated that satisfactory papers could be manufactured from mixtures containing from 56 to 66 per cent of Australian wood pulp. The pulp from the most important eucalyptus is capable of being converted into good paper, provided that it is prepared in the proper manner and is subsequently treated in the right way in the paper mill. The cost of manufacturing the pulp depends largely upon the site at which it is produced, but the result of the Institute's investigation of the cost of production for one area, not particularly favorably located, shows that the cost of bleached pulp would probably be less than £13 per ton. A plant with a daily output of 10 tons would cost £33,000.

It is estimated that chemical pulp could be produced from certain Australian woods if operations were carried out on a large scale; and it is stated that, with mechanical pulp selling around £10 per ton in England, chemical pulp from Australian woods could be economically used to replace ground wood in the manufacture of news print in Australia. A proportion of long-fibred chemical pulp would, of course, be needed, and would have to be imported, but in time even this may be replaced by pulp produced from Australian grown pines. The Institute's investigations seem to indicate that as far as Australia is concerned there should be a systematic inquiry into the conditions under which the news print industry may be established.

New Facts About Our Forest Lands

WASHINGTON, D. C., August 6, 1923.—New facts about the country's forest land and timber situation are contained in a Forest Service report just published by the United States Department of Agriculture. The pamphlet deals with the two national problems—utilization of forest land and methods of meeting our timber requirements. Earl H. Clapp, Assistant Forester, who is one of the contributors of new data, states it as his opinion that, rightly handled, the forest lands of the United States can be made to meet our timber requirements. "The progress of reforestation is encouraging," he says, "but is still far too slow."

Larger Offices for McCauley Co.

[FROM OUR REGULAR CORRESPONDENT.]

CLEVELAND, Ohio, August 7, 1923.—Large increase in business has forced The McCauley Paper Company of Cleveland to seek larger office quarters; as a result the company is now located at 652 Leader Building. The new telephone number is Cherry 3132.

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Conducted by W.G.MacNAUGHTON, Secretary

STEAM ACCUMULATORS*

By M. Emanaud

We have previously noted in these columns the trend of power development toward the so-called "superpower" system. It was pointed out that an investigation of the possibility of purchasing such power at off-peak loads might lead to economies in the chemical and allied industries. The present article, which deals with an auxiliary which permits heat in the form of steam to be stored, will prove of interest to users and prospective users of the electric-steam boiler. It points the way to a use of such boilers at off-peak loads when their current requirements may be most cheaply met.—Editor *Chemical and Metallurgical Engineering.*

The steam accumulator is an offshoot of the evolution of the boiler. The boiler as a unit has been undergoing a gradual process of dissociation into its elements, the furnace becoming a subject of separate study; and the steam generator, the economizer and the superheater becoming separate units, separately considered. The large reserve of heated water contained in a boiler system was formerly stored in the boiler, and acted as a reservoir for heat. This element in its turn is now becoming dissociated from the boiler and is often separately installed and called a steam accumulator—a device of much interest to industry at the present time.

General Considerations

The two principal requirements in boiler operation are maintaining a pressure approximately constant, and evaporating water in quantities to meet the demand. These conditions would be difficult to maintain except that vaporization is almost instantaneous in the presence of a distinct pressure drop.

When the pressure of a boiler is reduced by the removal of steam, more steam is immediately formed, due to the tendency of the system to keep at the maximum pressure corresponding to its temperature. Even when there is no source of heat in connection with the system, pressure is restored to a point approximately the original and steam is formed, with the result of lowering the temperature of the whole system. In this case, the heat necessary for vaporization is taken from the amount of heat stored in the water and in the material of the boiler itself.

Boiler operation is thus largely reduced to a matter of maintaining constant temperature. When the quantity of heat accumulated exceeds that carried off in the steam, operation becomes easier, because oscillations in the temperature are slower. This means that operation is simple when the calorific capacity of the whole system is high. To have this high calorific capacity means to have a relatively large quantity of water and a huge mass of masonry, together with a large grate, bearing a large fire. But such a system has its disadvantages. The bulk and weight are great, and hard to accommodate. The danger of explosion is increased because of the large amount of stored energy.

The evolution of the boiler, then, has been a series of compromises between the advantages and disadvantages pointed out above. In a general way, as the power has been increased, it has been found necessary relatively to decrease the dimensions. The grate has been decreased in relative size as the rate of combustion has increased. The reserve of water in the system and the evaporating surface have also been relatively decreased, weakening the calorific capacity.

Regular operation when the calorific capacity of the system is weak is possible through the maintenance of constant operating conditions. It is the variations in demand that makes the difficulty of obtaining regular and constant operating conditions. In many industries the demand is extremely variable and, as steam production should be absolutely constant for the best operating conditions, the steam accumulator has been developed to act as a buffer between these two conditions. The complete installation, then, to replace the old-time boiler, consists of a combustion chamber, an evaporating element, a superheater, a feed water heater, an economizer, an accumulator and an air preheater.

Such an installation, although of a volume equal to that of the old-style boiler, is much less liable to explosion dangers, because the steam accumulator, while containing a large mass of hot water, is not liable to explosions because not directly heated.

Discharge of Accumulators

If the advantages previously mentioned were alone taken into consideration, it would seem that the steam accumulator must have been used for some time. But it has been used but very little. This is explained when the limits within which it can be used are considered, these limits being due to the system of discharge necessary.

Considered as a steam accumulator, a reservoir of hot water under pressure appears very bulky and is usable only within narrow limits. Despite this, the accumulator is becoming more necessary and more widely used. The reason for this is found in the time factor, which was not taken into consideration in the above mathematical demonstration, because it was stated that vaporization in the accumulator is extremely rapid. The speed of the discharge is a function of the lowering of pressure and has no limit, even attaining to the dimensions of an explosion.

* Abstracted from *La Technique Moderne*, April, 1923, in *Chemical and Metallurgical Engineering.*

Technical Section, Page 48

The duration of the discharge has no influence on the figures which precede, and it is exactly this rapid vaporization, almost instantaneous in response to the demand, which has been the cause of the interesting applications of the steam accumulator. It is this essential quality, that makes the accumulator approximately a thermal flywheel, which constitutes its value. The contrary phenomenon—that is to say, the condensation in the accumulator of steam coming directly from the generator or from the exhaust of the engine—is also a rapid phenomenon. But it is very much less so than the phenomenon of vaporization. One reason for this is that the condensation surface must always be much less than the vaporization surface, being only the free surface of the accumulator and the water surface therein. Again, condensation will be stopped if the heat of the steam condensed is not dispersed quickly throughout the accumulator. While in the case of vaporization, the temperature must be uniform because the steam which forms penetrates throughout the whole mass of water in freeing itself, agitating this water and giving up some of its heat to the water. As against this, the heat contributed by the charge of steam in condensation is applied only to the water surface and must be more slowly dispersed by conduction and convection.

The difference in pressure between the source of steam and the accumulator is also necessary. This is the price paid for the service rendered by the accumulator.

In the various devices mentioned below, the methods used by the inventors to keep the temperature uniform during the charge will be noted. In passing, note that one can apply here all the means used by boiler designers for creating circulatoin. In practice, the duration of the discharge also causes losses through the walls, and these losses result, in some accumulators, in variations in the pressure of the steam supplied.

The Halpin Accumulator

Since 1892 accumulators of the Halpin type have been built in England. This accumulator is shown in Fig. 1. It is a true water

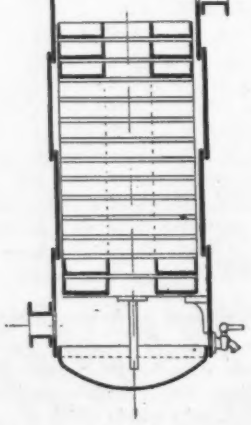

FIG. 2

First Type of Rateau Accumulator

reservoir, situated directly over the steam drum of the boiler, to which it is connected. Steam comes from the boiler through the pipe marked *A*. Through the connection *B* the water is sprayed into the trough *C*, which is heated by the steam. During a time of low steam demand, while the supply to *B* is continuous the valve *D* is closed. The level of the water in the accumulator rises, and in effect the equipment becomes a reservoir of hot water at boiler pressure. When the steam demand exceeds the production, the feed of cold water spray through the nozzle *B* is automatically stopped, and the boiler is fed with hot water from the accumulator, which is at the temperature of vaporization. In this way the boiler production is increased without going to a higher rate of firing.

Rateau Accumulators

When Rateau installed the accumulators in the mines at Bruay-in August, 1902, he was guided by a new idea. His apparatus had for its object the saving of an amount of exhaust steam from an exhausting engine which was in intermittent use. The steam thus saved was used for the continuous supply of a steam turbine, which ran at a lower pressure and operated a 300-hp. generator. The amount of steam obtained was 6,400 kg. per hour. This was

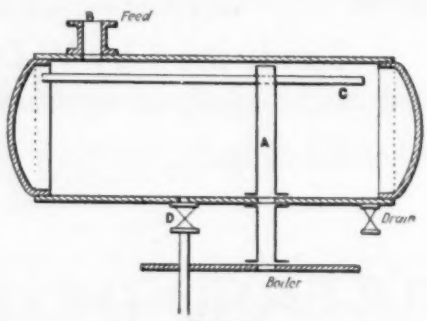

FIG. 1

Sectional Elevation, Halpin Accumulator

utilized in the turbine at pressures ranging from 0.9 to 0.15 kg. This accumulator consisted of four identical parts, each like the vertical tank shown in Fig. 2. It is of sheet metal inclosing annular trays of cast iron, one above the other, each filled with water. The total weight of cast iron used was 40 metric tons.

The idea used in the design of the accumulator was to obtain a large total calorific capacity and a large surface of contact between the steam and the water and between the steam and the metal of the accumulator. The steam circulated around the outside of these trays and down through the axial flue and in this way kept the water at a uniform temperature.

Among the accessories used in this apparatus were: An automatic exhaust valve to allow the steam to pass to the air in cases where the turbine was not running or was using only a small amount of steam. An automatic pressure regulator which per-

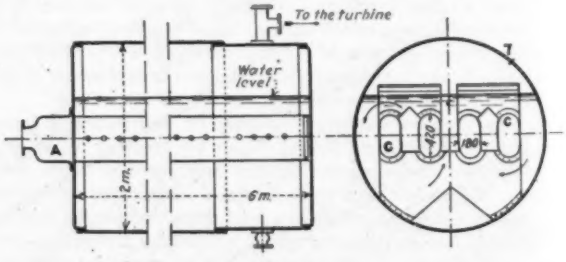

FIG 3

Second Type of Rateau Accumulator

mitted the turbine to be fed directly with live steam when the pressure in the accumulator fell to a point too low for the service, and an automatic blowoff for discharging excesses of water which were carried into the accumulator by the steam.

A new style of Rateau accumulator was made for the mines at Béthune. In this design, shown in Fig. 6, the cast iron is omitted and the accumulator incloses only water. This type of design ob-

tained a maximum calorific and was much more advantageous than the one described above. From Fig. 6 it will be seen that this accumulator is a cylindrical horizontal reservoir. It is 3 m. long and contains about 10 cu.m. of water, being operated about two-thirds filled. To effect a distribution of the heat contained in the steam, the steam is injected through the four cylinders marked *A* in the elevation and *C* in the cross-section. These cylinders have perforations in their sides, as shown in the elevation, through which the steam escapes into the water, creating a violent agitation in the vertical spaces between the baffles which are set between the cylinders. The currents set up by this agitation take the direction shown by the arrows. A check-valve in the incoming line prevents water from flowing back toward the machine. The accumulator received 4,500 kg. of steam per hour, with a stoppage of only 2 minutes.

Note in these two types of Rateau accumulators the arrangement which permits a rapid mingling of the steam and water. These two machines show clearly the two possible solutions—that is, to divide the water into numerous thin layers, or to create in the body of water in the reservoir a violent agitation.

In later apparatus designed by Rateau the mixer represented in Fig. 4 is employed. In this mixer the steam enters through the pipe *T*, which is above the water level, by the slots marked *A*, which are above a concave plate *C* for reflecting the vapor and the water of condensation upward. This results in an ascending current in the cylinder marked *B*, which is immersed in the water of the accumulator and consequently results in a general circulation.

Morison Accumulators

In Fig. 5 note the mixer used by the Morison accumulator, a cross-section of which is shown in Fig. 6. In this accumulator the steam enters through the pipe *A*, and passes, controlled by the automatic valve marked *S*, either to the machine connected to point *B* or through pipe *C* to the accumulator. Steam can pass directly from the accumulator to the machine in the pipe marked *D*. The cylinder of the mixing chamber can be noted in the cross-section immersed in the water in the accumulator.

Bell Accumulator

A type of accumulator which is very different from those described so far is the bell accumulator, which is like a gas-holder in design. It is composed of a cylindrical bell 8 m. in diameter immersed in a circular cistern of water. This has a vertical height of 7 m. A metallic framework is built around the bell to guide it and it is charged with steam which gives it an interior pressure varying between 1.025 and 1.030 atmospheres.

The steam, admitted in the bottom center of the bell, is discharged by a vertical pipe opening near the top of the bell. A pipe for feeding live steam is provided to insure automatic maintenance of the pressure when the bell is lowered and the steam does not enter the accumulator in the regular manner in sufficient quantity.

This type of apparatus has, in comparison with the accumulator containing a large reservoir of water, the advantage of a fixed pressure—that is to say, it affects the machines which supply it with exhaust steam much less than the other type.

Ruths Accumulators

For a number of years the Swiss engineer Ruths has designed accumulators of large capacity and high pressure. This accumulator, shown in Fig. 7, consists of sheet-iron cylinders with hemispherical ends. These cylinders are nearly filled with water. They are insulated with 100 mm. thickness of infusorial earth or an equivalent covering. This is in turn covered by another layer of sheet iron, for they are usually placed in the open and must be protected. The supports for these accumulators are arranged to allow free expansion.

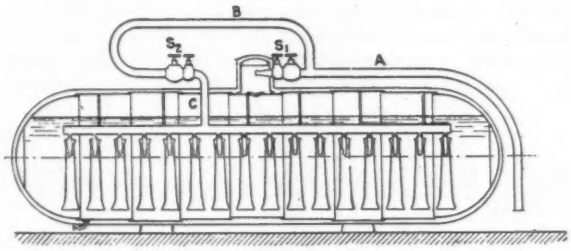

FIG. 7
Ruths Accumulator

Steam is distributed in the contained water by means of a diffuser, the object of which is to insure positive circulation and uniform temperature. Referring to Fig. 10, the steam enters by the pipe marked *A*, the valves as S_1 being closed and those at S_2 being opened. The steam follows the line *B* and enters the diffuser through the pipe *C*. When it is desired to withdraw steam from the accumulator, the valves at S_2 are closed and those at S_1 are opened, the steam being drawn away from the accumulator dome and flowing out by the same pipe *A*.

FIG. 4
Rateau Type Mixer

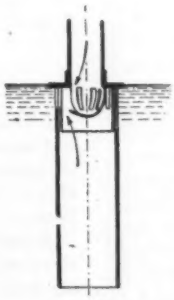

FIG. 5
Morison Type Mixer

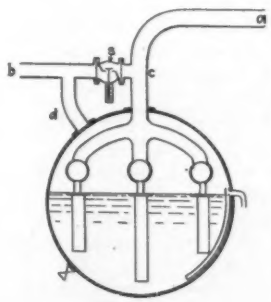

FIG. 6
Transverse Sectional Elevation, Morison Accumulator

Steam is withdrawn from the dome through a nozzle to prevent any of the water being carried out, this water being present in the steam dome due to the violent boiling in the accumulator. The accumulator is normally filled to 90 or 95 per cent. of its volume.

Comparison of the Types

The apparatus of the gas-holder type can be charged most rapidly, as there is no necessity in this apparatus for mixing to obtain a

uniform temperature. That is because an absence of uniform temperature in this apparatus will have no effect on its ability to absorb steam, which is the case with all apparatus in which the steam is condensed in the water. This sort of apparatus also maintains a steadier pressure and hence has less influence on the machinery supplied by it with steam.

On the other hand, these bell accumulators are more bulky than the water type, because the uncondensed steam has a much greater volume in comparison to the steam when condensed in water. The advantage obtained here, however, is not so much as one might at first believe, because the water reservoir type of accumulator necessitates the storage of a large volume of water which is to be transformed into steam during the accumulator's discharge.

Supervision is much easier and heat insulation is much less expensive in the water reservoir type of apparatus than in the gas-holder type, because in the first type there are no moving parts. The latter type of accumulator, when well designed to insure a uniform temperature and to avoid violent ebullition, is a machine of definite functioning qualities which permits remote control, and needs a minimum operating force.

The degree of saturation of the steam supplied by accumulators depends not only on more or less regular ebullition and release of steam in the apparatus but also on the fall in pressure which is obtained in the reducing valve at the outlet.

BIBLIOGRAPHY

Rateau Accumulators, *Le Génie Civil*, March 12, 1904, *Electrical Review*, Sept. 6, 1912; Morison Accumulators, *La Revue de Mécanique*, April, 1909; Harlé Balcke Accumulators, *Stahl und Eisen*, June 15, 1911; Steam Accumulators in Mines, *La Technique Moderne*, September, 1921; Ruths Accumulators, *Verein Deutsches Ingenieur*, May 27, 1922, and June 3 and 17, 1922; *Stahl und Eisen*, June 15, 1922; Electric Boilers, *La Houille blanche*, January, February, 1921, *Le Génie Civil*, Oct. 1, 1921.

MORE COMPANIES CONTRIBUTE TO TEXTBOOK FUND

The active interest of B. T. McBain, assistant general manager of Nekoosa-Edwards Paper Company, in facilities for better trained men in pulp and paper manufacturing, is evidenced by the additional list of contributions which he has secured for the $5,000 fund to complete the fourth and fifth volumes of *Manufacture of Pulp and Paper*. A number of the companies listed had previously contributed individually or through associations of paper manufacturers.

The orders for the third volume on the Preparation and Treatment of Wood Pulp are being received in large number and many orders have already been placed for the final volumes when they are issued.

Albemarle Paper Manufacturing Company, Richmond, Va.	$50
Allis-Chalmers Manufacturing Company, Milwaukee, Wis.	50
Brown Company, Portland, Me.	50
Brownville Paper Company, Brownville, N. Y.	20
Bryant Paper Company, Kalamazoo, Mich.	50
Cameron Machine Company, Brooklyn, N. Y.	50
Carew Manufacturing Company, South Hadley, Mass.	20
Carthage Machine Company, Carthage, N. Y.	25
Central Paper Company, Muskegon, Mich.	25
Crane & Company, Dalton, Mass.	40
Defiance Paper Company, Niagara Falls, N. Y.	20
Dells Paper and Pulp Company, Eau Claire, Wis.	25
Dill & Collins Company, Philadelphia, Pa.	20
E. I. duPont de Nemours Company, Chicago, Ill.	100
Eastern Manufacturing Company, Bangor, Me.	40
Esleeck Manufacturing Company, Turners Falls, Mass.	20
Finch, Pruyn & Co., Glens Falls, N. Y.	25
Fletcher Paper Company, Alpena, Mich.	40
Hampshire Paper Company, South Hadley, Mass.	20
Hawley Pulp and Paper Company, Oregon City, Ore.	25
Holyoke Card and Paper Company, Springfield, Mass.	20
Inland Empire Paper Company, Millwood, Wash.	20
Jenssen, G. D., Company, New York City	25
Kalamazoo Vegetable Parchment Company, Kalamazoo, Mich.	10
Kimberly-Clark Company, Neenah, Wis.	20
Knox Woolen Mills, Camden, Me.	50
Langston, S. M., Company, Camden, N. J.	25
McDowell Paper Mills, Philadelphia, Pa.	25
Minnesota and Ontario Paper Company, International Falls, Minn.	40
National Paper Products Company, San Francisco, Cal.	25
Nekoosa-Edwards Paper Company, Port Edwards, Wis.	50
Pettebone-Cataract Paper Company, Niagara Falls, N. Y.	25
Port Huron Sulphite and Paper Company, Port Huron, Mich.	50
Strathmore Paper Company, Mittineague, Mass.	75
Sturtevant, B. F., Company, Hyde Park, Boston, Mass.	$100
Watab Paper Company, Sartell, Minn.	25
Waterbury Felt Company, Skaneateles, N. Y.	50
Wausau Sulphate Fibre Company, Mosinee, Wis.	20
Western Paper Makers Chemical Company, Kalamazoo, Mich.	100
West Virginia Pulp and Paper Company, New York City	50
York Haven Paper Company, Philadelphia, Pa.	50
A Friend	100

TECHNICAL SECTION, PAGE 51

Recent Incorporations

EASTERN PULP AND WOOD PRODUCTS CORPORATION, New York, timber; capital, $500,000. U. S. Corporation Company. Incorporated in Delaware.

BEAVER PULP AND PAPER COMPANY, Manhattan, New York, 1,000 shares preferred stock, $100 each; 1,500 common, no par value; active capital, $40,000. Incorporators: D. J. Hoffman, J. G. V. Lang. Attorney, L. B. Wehle, 111 Broadway, New York.

SANI-PAPER PRODUCTS COMPANY, Wilmington, Delaware. Manufacturer of paper products. Capital, $100,000.

DELIA BROTHERS, paper stock, Brooklyn, New York; capital, $10,000. Incorporators: V. and F. Delia, C. de Prospo. Attorney, S. J. Trapani, 138 New Jersey avenue, Brooklyn.

Simpson Leaves Allied Mills

[FROM OUR REGULAR CORRESPONDENT.]

KALAMAZOO, Mich., August 8, 1923.—Samuel A. Simpson, general superintendent of the Allied Paper Mills, this morning severed his connection with that concern and will take a much needed rest after 33 years of almost constant service, with vacations few and far between.

In addition to his position with the Allied, Mr. Simpson is also vice-president of the Mac Sim Bar Paper Company, Otsego, and has heavy holdings in that concern.

He is one of the best known papermakers in the Kalamazoo valley district. He came to Otsego 33 years ago and was steadily in the employ of the Bardeen Paper Company until that company was merged with the King Paper Company and the Monarch Paper Company in the Allied Paper Mills.

First employed as a machine tender, he was made superintendent of Bardeen mill No. 1 in 1895 and general superintendent of the three Bardeen mills about a year later.

"I have no plans for the immediate future," said Mr. Simpson. "My one thought is to take a good rest and then get back in the harness. We are now living in Kalamazoo, but my home is still vacant in Otsego and we may move back there."

GEORGIA CLAYS FOR PAPER FILLERS*

W. M. WEIGEL, MINERAL TECHNOLOGIST, DEPARTMENT OF THE INTERIOR, BUREAU OF MINES

The Department of the Interior, Bureau of Mines, as part of its investigational and research work on the non-metallic minerals has been carrying on an investigation of Georgia white clays for their use as fillers. This relates to all filler uses to which such clays may be put but that for paper is most important and of most interest to the paper industry.

The object of the work was to determine what Georgia clays when properly prepared were suitable for paper and how they compared in grade with clays from other sources. The output of a number of Georgia mines is now being used for paper. Samples from these were included in those tested as well as those from undeveloped deposits and from operating properties where the product is being used for other purposes than paper. In this article no mention is made as to the present market of operating mines included.

The number of samples secured, the results from which are given does not by any means represent or limit the number of deposits available. It was impossible to obtain samples from all known deposits so representative ones were taken from the different districts with the idea of showing the extent of the areas available. There are doubtless many other deposits of equal grade and economic value that prospecting and search will reveal.

Location of Deposits

Samples were collected in the field and sent to the Southern Experiment Station of the Bureau of Mines at Tuscaloosa, Alabama, where the tests were conducted. In all cases the samples collected were crude clay and had not been washed or previously prepared. Also only deposits which are or gave promise of economic value with respect to transportation, thickness of bed and cover were sampled. The distinguished number and location or nearest railroad shipping point are given in Table I. The missing numbers between No. 1 and No. 26 relate to samples collected for other purposes and were not considered for filler use.

TABLE I.

Sample No.	Location or Nearest Railroad Station.
G 1	Gordon, Ga.
G 2	Gordon, Ga.
G 3	Gordon, Ga.
G 6	McIntyre, Ga.
G 7	Claymount, Ga.
G 8	Griswold, Ga.
G 9	McIntyre, Ga.
G 15	Gordon, Ga.
G 16	Butler, Ga.
G 17	Butler, Ga.
G 22	Perry, Ga.
G 24	Nakomis, Ga.
G 26	McIntyre, Ga.
G 27	Hephzibah, Ga.
G 28	Hephzibah, Ga.
G 29	Dry Branch, Ga.
G 30	Dry Branch, Ga.
G 31	Dry Branch, Ga.
G 32	Dry Branch, Ga.
G 33	Cuthbert, Ga.
G 34	Toomsboro, Ga.
G 35	McIntyre, Ga.
G 36	McIntyre, Ga.
G 37	Toomsboro, Ga.
G 38	Wrileys, Ga.
G 39	Toomsboro, Ga.
G 40	Wrileys, Ga.
G 41	Toomsboro, Ga.
G 42	Toomsboro, Ga.
G 43	Wrileys, Ga.
G 44	Gordon, Ga.
Paper Clay A.	Obtained from paper manufacturer.
Paper Clay B.	Obtained from importer.
Paper Clay C.	Obtained from paper manufacturer.
Paper Clay D.	Obtained from paper manufacturer.

Samples A, B, C, and D are from clays now used in paper making and were included to compare the Georgia clays with others now considered good and in actual use in the industry. A was supplied by a manufacturer of high-grade book paper. It is a Georgia clay but its exact source is unknown. B is an English paper clay obtained from an importer, while C was supplied by the manufacturers of a general line of high-grade paper who are very particular about their loading material, and was said by them to be a high-grade English clay. D was obtained from a paper manufacturer and was classified by them as "Extra Grade English." These four are presumed to have been washed and were tested as received.

Preparation of the Samples

The crude clays as mined vary considerably in the amount of impurities they contain consisting mainly of sand and mica. As a comparison was desired between the clays as they are or would be prepared for the market the samples were all treated alike and the tests carried out on the refined or washed product.

The samples were dried, crushed and roughly pulverized to about 40 mesh and washed in a laboratory washer in lots of 3 kilos each. The washer as operated was essentially a classifier the feed after blunging being carried to the bottom of the vertical tank in which was maintained a rising current of water with a velocity of 0.20 mm. per second. The clay was dispersed with the necessary amount of caustic soda added to the blunger.[1] The overflow from the washer was acidified and after settling, filter pressed, dried and pulverized for 30 minutes in a pebble mill.

Methods of Testing

Three physical properties of a clay are of importance in determining its value as a paper filler. These are grit, color and retention.

Three methods are in use for determining the amount of coarse grains or so-called "grit." They are the centrifugal, decantation or sedimentation and screen test. These have all been described in the technical literature on the subject and are well known to paper technologists. It is believed that the screen test if made with a carefully selected screen is the most practical and quickest. The results of the grit test on the washed clays or percentage remaining on a 325-mesh screen are given in Table II. The screen used was made up from wire cloth carefully selected from several samples examined. The nominal opening was about 0.044 mm. and the largest dimension of any opening found did not exceed 0.70 mm. The sample of clay was washed through the screen with a gentle spray of water, and the residue dried and weighed. The "grit" was examined under the microscope to determine its character.

The color or degree of whiteness is important especially for high-grade papers. As far as can be determined no standard method of testing for color is in use other than the usual comparison of two or more samples placed side by side. As it is impossible to give such a comparison in figures this method will not apply to the tabu-

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[1] Schurecht, H. G., The Use of Electrolytes in the Purification and Preparation of Clays. Tech. Paper 281, Bureau of Mines.

lation of tests of a large number of clays. To determine the color characteristics of the clays considered a Pfund colorimeter was used.[2] This instrument indicates very slight variations in color and gives numerical values as a basis of comparison. Also since the "brightness" is determined in red, green and blue light of known wave lengths the characteristics of the samples were determined: that is showing whether the samples were yellowish, blueish or true gray. The figures given in Table II under "Color Characteristics" give the "reflection coefficient" or degree of brightness for each color expressed as a percentage. The instrument was standardized with pure magnesium carbonate with a reflection coefficient of 0.98. All color tests were made on dry clay.

If the values in columns II, III, and IV of Table II are plotted as ordinates and the wave lengths of the colors as abscissæ curves are obtained which graphically represent the color characteristics. A true gray or rather a clay which is non-selective in color will give a horizontal line, the reflection coefficients for blue, green and red being equal. As the color becomes more selective, that is, shows a tint or dominant hue, the values for the reflection coefficients diverge. A clay with a decided tint may give higher reflection coefficients or be a "brighter" clay than one which looks more white due to its lack of selectivity but is in reality a darker clay. For example, take Clays G-4 and D. D appears slightly the whiter, but if a very small amount of ultramarine is well ground up with G-4 it looks decidedly the whiter because its color has been made less selective. It is darker or less bright than it was originally but is still not so dark as D. Upon the addition of a small amount of blue pigment determinations with the colorimeter give values for the coefficient with the blue screen approximately the same as for the original clay but with a reduction of the values for green and red. In other words the color has been made less selective at the sacrifice of brightness and the reflection coefficients approach each other in value.

The difference between the reflection coefficients for blue and red is in a sense, a measure of the selectivity of the color of the clay. These differences are shown in Column V, Table II, and if taken in connection with the brightness which may be considered as the co-efficient with the green screen, give a good idea of the relative so-called "whiteness" of the clays. For example Clay G-35 has a coefficient with green of 87.6 while G-41 has a coefficient of 87.2, G-35 being the brighter. But G-41 appears very slightly whiter as it has less selectivity as the difference between the blue and red for G-35 is 11.3 while for G-41 it is only 8.8.

It will be noted that without exception all the clays are yellow or reddish in hue.

Retention is the most important property of a clay for paper if the grit and color are acceptable. Apparently different methods are employed in different laboratories for calculating the per cent retention which accounts in some degree for the varying results obtained. Also laboratory tests do not generally agree with results obtained in the mill but it is assumed that in the testing of a series of clays in the laboratory under identical conditions that a fair comparison is obtainable between the different clays representing their retention difference which difference would fairly well be borne out in mill practice.

In determining the retention, calculations were based on the definition that retention is the proportion or per cent of the original clay furnished that is found in the finished paper. This definition is given by Sutermeister[3] and is implied by Withan.[4] The method requires the determination of the weight of finished paper which in the ordinary method of making hand sheets by dipping is not determinable.

In beginning the retention tests a laboratory beater mill was first employed. While it was sometimes possible to obtain good checks, just as often the results would vary by several per cent, even with all conditions of time and materials furnished the same. It was decided that the variation was due to differences in degree of beat-

[2] Pfund, A. H. For a full description of this colorimeter, its principles and method of use, see "A New Colorimeter for White Pigments and Some Results Obtained by Its Use." Amer. Soc. for Testing Materials, June, 1920.

[3] Sutermeister, Edwin, Chemistry of Pulp and Paper Making, p. 292, John Wiley & Sons, New York.

[4] Withan, Sr., C. S. "Modern Pulp and Paper Making," p. 236, Chemical Catalogue Co., New York.

TABLE II

	I	II	III	IV	V	VI	VII	VIII	IX	X
		Reflection coefficient or color characteristics								
Clay No.	"Grit" or per cent on 325 mesh screen	Blue wave length 480uu	Green wave length 56 μ	Red wave length 635 μ	Difference between red and blue	Per cent retention with 20% clay	Per cent retention with 10% clay	Mean or average of retentions 20 and 10%	Grade or rank of clays	Minerals in residue on 325 mesh
G- 1	0.14	69.8	78.7	83.0	13.2	46.4	50.5	48.4	58.5	Kaolinite, feldspar
G- 2	0.30	71.7	82.8	88.2	16.5	45.3	53.1	49.2	60.4	Kaolinite, quartz
G- 4	0.30	81.2	89.0	92.1	10.9	46.8	56.0	51.4	63.9	Kaolinite, quartz
G- 6	0.08	69.0	77.9	81.3	12.3	47.3	56.8	52.0	60.6	Kaolinite, quartz, mica
G- 7	0.02	71.7	83.0	88.2	17.1	49.0	53.9	51.4	61.9	Kaolinite, quartz, mica
G- 8	0.04	73.7	83.7	88.2	14.5	45.1	49.3	47.2	59.3	Kaolinite, mica, quartz
G- 9	0.04	74.5	83.5	88.3	13.8	50.7	56.1	53.4	63.4	Kaolinite, quartz, mica
G-15	0.04	68.9	76.8	83.0	14.1	49.1	51.7	50.6	59.3	Kaolinite, mica, quartz
G-16	0.43	75.0	84.0	87.7	12.7	47.4	48.7	48.0	61.2	Mica, kaolinite, quartz
G-17	2.00	66.8	75.0	84.0	17.2	49.4	53.8	51.6	59.4	Mica, kaolinite, quartz
G-22	1.07	65.3	72.1	79.7	14.4	49.5	53.2	51.3	58.2	Kaolinite, quartz, mica
G-24	0.02	* ...	64.5	67.2	...	52.5	58.0	55.2	58.2	Quartz, kaolinite, mica
G-26	1.20	77.1	85.2	90.2	13.1	49.3	53.0	51.1	62.4	Kaolinite, mica, quartz
G-27	0.40	75.4	85.2	89.5	14.1	44.2	50.8	47.5	60.0	Kaolinite, mica, quartz
G-28	0.20	69.7	81.4	88.7	19.0	43.8	50.7	49.7	60.2	Kaolinite, mica, quartz
G-29	0.10	77.5	84.4	89.6	12.1	45.4	47.3	46.3	59.0	Kaolinite, mica
G-30	0.13	80.3	88.3	92.5	12.2	45.7	54.2	49.9	62.7	Kaolinite, mica, quartz
G-31	0.07	76.8	85.5	90.2	13.4	46.1	55.4	80.7	62.3	Kaolinite, mica, quartz
G-32	0.03	78.1	87.0	90.8	12.7	45.8	51.6	48.7	61.4	Kaolinite, mica, quartz, feldspar
G-33	0.06	74.7	82.8	87.9	13.2	48.3	51.6	49.9	60.8	Kaolinite, mica, quartz, feldspar
G-34	0.08	80.6	87.5	91.2	10.6	52.8	54.3	53.5	64.8	Kaolinite, quartz
G-35	0.03	81.4	87.6	92.7	11.3	46.7	54.9	50.8	63.0	Kaolinite, quartz
G-36	0.04	77.7	84.8	90.1	12.4	45.4	51.4	48.4	60.5	Kaolinite, quartz, feldspar
G-37	0.50	78.4	86.2	91.1	12.7	47.4	54.7	51.0	62.7	Kaolinite, quartz, feldspar
G-38	0.17	81.1	80.7	86.1	15.0	49.6	56.0	52.8	62.1	Kaolinite, quartz, feldspar
G-39	0.35	71.8	82.2	89.1	17.3	48.1	53.5	50.8	61.2	Kaolinite, quartz, mica
G-40	0.04	77.9	84.8	89.8	12.0	45.3	54.5	49.9	61.5	Kaolinite, quartz, mica
G-41	0.03	81.3	87.2	90.1	8.8	46.6	53.4	50.0	62.4	Kaolinite, quartz, mica
G-42	0.07	71.9	81.6	87.7	15.8	44.4	54.0	49.2	60.0	Kaolinite, quartz, mica, feldspar
G-43	0.30	66.1	71.3	78.3	12.2	40.7	48.3	44.5	53.4	Kaolinite, quartz, feldspar
G-44	0.13	70.7	82.2	87.1	16.4	44.5	47.8	46.1	58.1	Kaolinite, mica, quartz, feldspar
Paper Clay A	0.17	70.9	78.5	85.3	12.6	49.8	50.9	50.3	59.7	Quartz, mica, kaolinite
Paper Clay B	0.29	71.8	80.0	83.9	12.1	48.2	48.6	48.4	59.8	Mica, quartz, kaolinite
Paper Clay C	0.80	74.0	84.0	87.7	13.7	51.1	51.4	51.2	61.8	Mica, kaolinite, quartz
Paper Clay D	0.27	79.2	84.5	87.1	7.9	47.8	52.5	50.1	61.6	Feldspar, kaolinite, quartz, mica

*Too dark to determine, 78.5; 83.5; 86.8; 8.3; Tuba clay.

ing as with the adjustable roll it was not possible to always have it set the same and the operator was not experienced enough to judge the exact degree of beating by an observation of the stock. A porcelain jar or pebble mill was then tried and the results obtained very satisfactory as checks could always be obtained within 0.5 per cent. The inside dimensions of the jar were 11¾ inches diameter by 9 inches long. It was rotated at a speed of 45 revolutions per minute. The charge of flint pebbles weighed 14 pounds. The largest pebbles being approximately 1½ inches in diameter and the smallest three-quarter inches.

The charge or furnish was as follows:

Water	12 pounds
Dry bleached sulphite pulp	50.00 grams
Rosin size, dry weight	.75 grams
Aluminum sulphate	1.00 gram

Two series of tests were run, first with 10 grams or 20 per cent. clay, second with 5 grams or 10 per cent clay. The jar mill was run exactly two hours in all tests. The size and alum were made up into stock solutions and proper quantities taken.

At the end of the run the pebbles were lifted out, rinsed off, the stock poured from the mill and all washings added. It was then diluted to exactly 9.1 kilos, approximately 20 pounds. To form the sheets a mold making sheet 6 by 8 inches was used fitted with 60 mesh Fourdrinier wire. The outside frame or deckle extended 1¼ inches above the wire. In making the sheets the mold was allowed to float on the surface of water in a pan. A measure holding exactly one-sixteenth of the total stock was filled and inverted over the mold and allowed to pour over the palm of the hand and the mold then lifted from the water. A slight suction is set up under the wires until the lower edge of the frame is lifted clear. The sheets were taken up from the wire on blotting paper, pressed in a letter press and dried between blotters on a steam drier. They were very uniform in thickness and weight. Six sheets were made from each test.

The wear from the grinding together of the flint pebbles introduced a complication in the calculation. This material was appreciable in amount and extremely fine, as fine or finer than the clay particles and was retained as well or better. Two methods of considering it were possible. First, determining the ash due to a blank run without clay and deducting this from the total ash. This was the simpler method but whether the per cent retention of this material would be the same in a blank as when present with a much larger amount of clay was uncertain. Second, the total wear from the pebbles for one run was then determined and this weight added to the weight of clay furnished and the calculation of retention made on the basis of the sum of the weight of clay and material ground from the pebbles. This second method was the one used.

To determine the wear from the pebbles a blank charge was run, using distilled water. The total stock was carefully weighed and measured quantities taken, evaporated to dryness and ignited. Knowing the ash due to pulp size and alum from blank runs with the beater mill the total material worn from the pebbles was calculated. At the start of the tests this was found to be 1.5 grams. As the work progressed other blanks were run and it was found that the pebble wear decreased at a fairly uniform rate, due to the surface of the pebbles becoming more smooth and polished. Toward the end of the tests the wear of the pebbles had decreased to 1.3 and remained fairly constant, varying from 1.29 to 1.33 grams. The correction applied was then made on a sliding scale. Running the pebbles in distilled water without any pulp gave a slightly greater wear which was to be expected as the cushioning effect and greater viscosity of the stock was absent. The loss on ignition of the flint from the pebbles was 1.5 per cent.

A sample calculation is as follows:

Clay No. G-26. Loss on ignition of clay 13.60 per cent, 10 grams clay furnished.
6 sheets weighed ..... 20.350 grams.
Weight per sheet ..... 3.3916 grams.
Calculated weight of finished paper 3.3916 x 16 = 54.2656 grams.

10 x .1360 = 1.36 grams combined water in natural clay.
1.5 x .015 = .0225 grams combined water in pebble grams.

1.3825 grams total combined water.

1.3825 ÷ 11.5 = 12.02 per cent loss on ignition of mixed clay and pebble dust.
11.5 grams = 10 grams clay plus 1.5 grams material ground from pebbles.
100.00 — 12.02 = 87.98 per cent.
Ash found, 9.95 per cent.
0.90 per cent = ash due to pulp, size and alum as determined by blank run in beater mill.
9.95 ÷ 0.8797 = 11.31 approximate per cent filler in paper.
100 — 11.31 = 88.69 per cent stock.
.8869 x 0.90 = 0.80 per cent correction for filled paper for ash due to pulp, size and alum.
9.95 — 0.80 = 9.15 per cent ash due to clay and pebble dust.
9.15 ÷ 0.8798 = 10.40 per cent natural clay and pebble dust in finished paper.
54.2656 x 10.40 per cent = 5.642 grams clay and pebble dust in paper.
5.642 ÷ 11.5 = 49.1 per cent retention.
Check run on same sample gave finished paper 54.9056 grams, ash 9.93 per cent, and 49.5 per cent retention. Average, 49.3 per cent retention.

As showing the uniformity of the hand sheets the maximum weight of finished paper calculated for tests with 20 per cent clay was 55.60 grams for the clay showing highest retention and the minimum weight was 51.14 grams, in the case of the clay showing the lowest retention, equal to 3.475 grams and 3.196 grams per 6 by 8-inch hand sheets or 3.31 and 3.04 ounces per square yard respectively. The variation in the case of 10 per cent clay was from a maximum of 53.58 grams to a minimum of 50.45 grams as the weight of finished paper.

Several samples of the clays examined were sent to a paper technologist who reported that he obtained retention values considerably in excess of those shown in Table II. The percentage of clay used was not reported but part of the difference is accounted for by the method of calculation used which gives results about six per cent. higher than as calculated above, and to the fact that a greater percentage of size was used.

Results of Tests

The results obtained in the various tests are given in Table II. The first column gives the per cent "grit" or residue remaining on a 325-mesh screen. The second, third and fourth the color characteristics and the fifth the difference between columns two and four. For a true perfect white, the readings would all be 100, and for a true gray the coefficients for blue, green, and red would be equal, showing that all the clays were deficient in blue. Column VI gives the retention when using 20 per cent and column VII when using 10 per cent clay. Column VIII is the mean or average of columns VI and VII. Column IX is the result of an attempt to grade or rank the samples according to their value for paper. Disregarding "grit" and assuming the samples all white enough to be used, retention is considered twice as important as color, so to the reflection coefficient for green light, which is the comparison that comes nearest a visual one, especially if the color of the clay is corrected in any way, is added twice the per cent retention. The sum is divided by three and the results shown in column IX. This gives purely an arbitrary or empirical grading and its correctness is dependent only on the personal opinion of the reader, and the demand of the grade of paper made as to the relative value of color and retention. A theoretically perfect clay would give a reflection coefficient and retention of 100 per cent with a rank of 100.

Column X gives the mineral constituents of the "grit," although in most cases the amount of this is so small as to be negligible. The minerals are given in the order of their estimated amounts, the predominating one being stated first.

Clays Numbered 17, 22, 24 and 43 would probably be considered too dark for any but dark colored papers. The others while showing considerable variation in color would be satisfactory for most purposes while some are considerably better than the clays from other sources with which they are compared.

The retention compares very favorably with the clays now used, nine of the samples being superior to the best English clay in this respect, and several others about on a par with it.

It is worthy of note that in all cases the per cent. retention with

10 per cent clay is greater than with 20 per cent. No attempt is made to explain this. Another noticeable fact is that there is not a great range between the maximum and minimum retention. This might seem to indicate that there is not a great deal of difference in the retentive properties of clays when refined or prepared in exactly the same way provided the washing has been done so as to eliminate most of the coarse particles.

The results of the work may be summarized in the following words. Many of the Georgia white clays when *properly washed* and *prepared* are fully equal to and in some cases are superior to the imported clays for use in paper.

The writer wishes to acknowledge his indebtedness to the Central of Georgia Railway, whose lines serve a large number of the deposits, who gave much assistance in, and bore most of the expense of the collection of the samples. To Dr. S. W. McCallie, state geologist of Georgia, for aid in the collection of samples, and to Mr. Arthur A. Coffin and Mr. Edwin Sutermeister for helpful suggestions and criticisms.

CURRENT PAPER TRADE LITERATURE

Abstracts of Articles and Notes of Papermaking Inventions Compiled by the Committee on Abstracts of Literature of the Technical Association of the Pulp and Paper Industry

Dyeing

The Manufacture of Lake Colors. H. H. Holden. *Paper Trade J.* 76, No. 15, 175, 177 (Apr. 12, 1923); *Paper Mill* 47, No. 15, 210 (Apr. 14, 1923); *Paper Ind.* 5, 160-161 (Apr., 1923); *Paper* 31, No. 26, 126, 128 (Apr. 18, 1923). Brief description of the manufacture of red, yellow, blue, green and black lakes, with an enumeration of their merits for paper making.—A. P.-C.

Coloring Matters for Coated Paper. Norman Clark, *Paper Trade J.* 76, No. 15, 177, 179 (Apr. 12, 1923); *Paper Ind.* 5, 155-156 (Apr., 1923); *Paper Mill* 47, No. 15, 96, 98 (Apr. 14, 1923); *Paper* 31, No. 26, 57-60 (Apr. 18, 1823). A brief outline of the properties of basic, acid, direct, and special dyes, color lakes, pigments, and metals (for foil papers) from the standpoint of coated paper manufacture, together with a brief description of the methods of handling these coloring matters.—A. P.-C.

Criticism of Ostwald's Color Theory. W. B. VanArsdel. *Paper* 31, No. 26, 113-116 (Apr. 18, 1923). From a discussion of the Ostwald color theory from theoretical and practical standpoints, the author concludes that the theory has not met with the assent of those who are competent to judge it among other color theories, although parts of it seem to be valuable contributions to knowledge, and that the Ostwald methods of color measurement should be regarded by those who use them as only approximate. No process of technical colorimetry which is free from practical objections has yet appeared; but there is no warrant for adding to these practical difficulties the haziness of meaning due to an unsound theory.—A. P.-C.

Investigation of Problems in Coloring in the Paper Mill Laboratory. Walter C. Holmes. *Paper Trade J.* 76, No. 6, 45-46 (Feb. 8, 1923). A discussion of the advisability of each paper manufacturer investigating his own color problems, and finding the solution best fitted to his own particular requirements, rather than depending on the work of the dye manufacturer who can devote only superficial attention to the problems of the individual paper manufacturer.—A. P.-C.

The Coloring of Paper. Andre Beltzer. *Industrie Chimique* 10, 106-109 (Mar., 1923). The author suggests that paper mills should equip themselves to manufacture their own dyes, and discusses the benefits to be derived therefrom.—A. P.-C.

Drying

Heat Transference in the Ventilation of Machine Rooms. J. O. Ross. *Paper Trade J.* 76, No. 15, 167-169 (Apr. 12, 1923); *Paper* 31, No. 26, 69-72 (Apr. 18, 1923); *Paper Mill* 47, No. 16, 16, 18, 36 (Apr. 21, 1923); *Paper Ind.* 5, 334-336 (May, 1923). An outline of the evolution of machine room ventilation, showing the importance of proper ventilation on quantity of output and quality of finished product, and emphasizing the great savings which can be effected by recovering the heat from the moisture-laden warm air from the machines. There are at present two methods of doing this: by heating the incoming air by means of a Briner economizer or by heating water directly by passing the vapor through a water spray.—A. P.-C.

Application of Steam Traps to Paper Machine Driers. L. D. Goff. *Paper Ind.* 4, 1719, 1721, 1723 (Mar., 1923); *Pulp & Paper* 21, 457-458 (May 3, 1923). A discussion of the merits of the Armstrong steam trap in ensuring proper steam circulation and temperature gradation in paper machine driers.—A. P.-C.

Temperature Equalizer for Paper Machine Driers. Geo. S. Witham, Jr. U. S. pat. 1,438,511, Dec. 12, 1922. Blasts of hot air are provided at various points between the web-forming mechanism and the calenders for maintaining approximately uniform temperature on both sides of the web as it passes through the machine, instead of having each side alternately dry and hot when in contact with the drier drums and then moist and cool when in contact with the felt. —A. P.-C.

A New Vapor Circulator for Paper Machine Driers. *Paper Ind.* 7, 1537, 1539 (Feb., 1923). A description of the Fulton system.—A. P.-C.

The Woodsome System of Paper Drying. *Paper Trade J.* 76, No. 1, 54-59 (Jan. 4, 1923). After outlining a basis for measuring the performance of drying systems, the author describes the Woodsome system (protected by U. S. pat. 1,428,198, Sept. 5, 1922, and Can. pat. 221,536, Aug. 1, 1922) *see Pulp & Paper* 20, 769 (Sept. 7, 1922).—A. P.-C.

Drying More and Better Paper With Less Fuel. F. C. Farnsworth. *Paper Mill* 47, No. 12, 12, 14, 46, 48 (Mar. 24, 1923). A discussion of the merits of the Farnsworth drying system. *Pulp & Paper* 19, 794 (July 28, 1921); *Paper Trade J.* 73, No. 2, 52 (July 14, 1921).—A. P.-C.

Drier for Paper Machines. F. P. Reed assignor to C. C. Orcutt. U. S. pat. 1,432,735, Oct. 17, 1922; Can. pat. 227,489, Dec. 26, 1922. The paper web is supported on a wire cloth and passed over a series of drying units, each of which consists of an open top box-like casing containing electric heating elements. The web is kept under tension to ensure uniform drying without warping or bending. —A. P.-C.

Drier for Paper Machines. T. F. Pinder assignor to C. C. Orcutt. U. S. pat. 1,432,729, Oct. 17, 1922; Can. pat. 228,423, Jan. 30, 1923. The paper from the wet end of the machine passes into a chamber containing steam heating elements placed above and below, but not in contact with, the web. Warm dry air is passed through the chamber in opposite direction to the paper. On leaving the chamber the paper passes through a pair of press rolls and through a series of finishing rolls. It then similarly goes through one or more exactly similar chambers. It then passes to a second section, similar in all respects to the first, except that it is equipped with

electric instead of steam heated elements. A heat exchanger is provided for heating the dry air by means of the moist air exhausted from the drying chambers.—A. P.-C.

Drier for Marbled Paper. F. P. Reed assignor to C. C. Orcutt. U. S. pat. 1,432,731, Oct. 17, 1922; Can. pat. 229,222, Feb. 27, 1923. The drier consists of an open top casing in which are electrically heated elements and over which the paper web is passed supported on a wire cloth. A suction nozzle is arranged below the web for collecting and removing the vapor formed.—A. P.-C.

Drier. F. P. Reed, and C. Nelson assignors to American Coated Paper Co. Can. pat. 229,121, Feb. 27, 1923. Each drier unit comprises a casing having means for supporting and guiding the web. Heating means are provided both above and below the web, and dry air is circulated continuously at both surfaces of the web. The units are so arranged that the temperature of the web is raised gradually, to eliminate surface drying and to permit removal of the vapor as it forms. The heating of the initial unit is provided for by waste heat from the succeeding units. The web may be made to follow a zig-zag path in one or more sections to insure sufficient drying.—A. P.-C.

Drying and Conditioning of Coated and Other Paper. J. O. Ross. *Paper Trade J.* 76, No. 15, 171-174 (Apr. 12, 1923); *Paper Ind.* 5, 110-114 (Apr., 1923); *Paper* 31, No. 26, 104-109 (Apr. 18, 1923); *Paper Mill* 47, No. 15, 86-94 (Apr. 14, 1923). An outline of the development of the drying and conditioning process for coated, wall, waterproof, glazed, gummed, and sand papers, showing particularly the importance of proper conditioning of coated papers to prevent "change of register" in the printing room.—A. P.-C.

Contribution to the Study of Drying. R. Isnard. *Papier* 26, 217-224 (Feb., 1923). An analysis of the heat losses at the driers of a paper machine (through the felt, by radiation, convection, condensation and at the traps), with suggestions for eliminating, or at least appreciably reducing, them. The author concludes that the most efficient remedy is a properly designed ventilating system, by means of hot air; and he suggests that the air be advantageously heated by means of the flue gases from the boilers.—A. P.-C.

Drier for Paper. F. M. Vaccaro, Eng. pat. 177,307, Jan. 19, 1921. An electrically heated drying chamber, especially suitable for drying material in sheet form is divided into a lower and an upper compartment by a partition which leaves communication passages at each end to permit free circulation of air from one compartment into the other. The lower compartment, through which the wet sheet travels, is provided at the bottom with a number of heating elements, mounted on a heat reflecting plate, and so arranged that the distribution of heat on to the sheet can be varied at will; the heating elements are designed to be used with any type of current. The upper compartment contains moisture absorbent materials. Continuous circulation of air is effected by raising that end of the drying chamber at which the wet sheet enters; this causes the warm air in the lower compartment to flow in the opposite direction to that followed by the sheet, and then to pass into the upper compartment, where it is dried, during which operation it becomes sufficiently cooled to flow through the upper compartment back into the lower one, thus making a complete circuit through the apparatus. The part of the air most heavily laden with moisture remains close to the surface of the travelling sheet and passes with it out of the drying chamber. Drying may be immediately arrested, if so desired, by opening a number of doors fitted in the sides of the chamber.—A. P.-C.

Drying of Felts and Paper on the Paper Machine. J. M. Voith, Ger. pat. 375,258, *Papierfabr*, 21, 264 (May 13, 1923). Instead of drying felts on cylinders in the usual way, they are passed around air heaters. The latter heat air which is blown against the paper sheet between the drying cylinders on the machine.—J. L. P.

Removal of Water from the Paper Sheet on the Machine Wire. Otto Schmidt, Ger. pat. 374,750. *Wochbl. Papierfabr.* 54, 1371 (May 19, 1923). Suction rolls are so arranged as to remove the water from both surfaces of the sheet on the longitudinal paper machine wire.—J. L. P.

Process for Drying Paper. Ogden Minton. Ger. pat. 370,260. *Papierfabr.* 21, 199 (Apr. 8, 1923). The sheet is passed through a heated bath of mercury into a chamber, in which air pressure is reduced, and out through a bath of hot mercury.—J. L. P.

Electrically Heated Rolls, Especially Calender Rolls. Siemens Elektrowarme Gesellschaft. Ger. pat. 373,085. *Papierfabr.* 21, 226 (Apr. 29, 1923). The heating unit is located near and outside of the surface of the roll.—J. L. P.

Special Papers

The Work of the Freight Container Bureau. *Paper Trade J.* 76, No. 11, 48-49 (Mar. 15, 1923). Tentative specifications are given for interior packing and preparation of refrigerators for crating, and for solid fiber and plyboard boxes for boots and shoes.—A. P.-C.

Production of Paper Board, Etc. Ger. pat. 364,565. *Wochbl. Papierfabr.* 54, 617 (Mar. 3, 1923). The fibrous mass, before converting to stock, is subjected while dry to a disintegrating and loosening treatment.—J. L. P.

Apparatus for the Manufacture of Parchment Paper. N. Nakamura. Jpn. pat. 38,110, Feb. 26, 1921. Sulphuric acid is sprayed from vertical parallel pipes on both sides of the paper, which is then washed with water and passed through 5° Bé. caustic soda solution. —A. P.-C.

Parchmentizing and Impregnating Paper With Phenol Condensation Products. H. C. P. Weber assignor to Metropolitan-Vickers Electrical Co. Eng. pat. 169,451, Sept. 22, 1921. The paper is parchmentized by treating with caustic soda, sodium zincate, and other suitable substance, and is then impregnated successively or simultaneously, and before or after removal of the parchmentizing agent, with a phenol and formaldehyde and subjected to heat and pressure, whereby a condensation product intimately incorporated with the fibers is obtained. Alternatively, the fiberous material is parchmentized and impregnated at the same time with a mixture containing the parchmentizing substance, phenol, and formaldehyde. For example, the paper is continuously passed through a parchmentizing bath containing 20 per cent caustic soda (10 to 15 per cent sodium chloride is added to prevent excessive shrinkage), then in succession through a bath containing phenol and a chamber containing formaldehyde vapor and between hot rollers under pressure. It is afterwards washed and dried.—A. P.-C.

Parchmentized or Vulcanized Paper. B. Herstein. U. S. pat. 1,429,427, Sept. 19, 1922. Sheets are formed of layers of paper, the cellulose of which is nitrated to contain not in excess of 4.5 per cent nitrogen, cemented together by superficial gelatinization induced by treating the weakly nitrated paper with an alkali, e.g., caustic soda.—A. P.-C.

Process of Making Fiber Board. J. C. Peabody. U. S. pat. 1,376,353, Apr. 26, 1921. A stock is prepared by adding alkaline cellulose thiocarbonate, glue, casein, viscose, or other colloidal or cementitious substance to a mass of fibers mixed with water, and this stock is diluted with water to which has been added such a quantity of the colloidal substance that the concentration of the latter is maintained practically constant. Sheets of paper or boards are then formed from the diluted pulp in the usual manner.—A. P.-C.

Fiber Board. M. Chew. Eng. pat. 178,155, Nov. 12, 1920. Chip waste is steamed, mixed with water, beaten in a ball mill or other beater to a fibrous, watery, pulpy mass, the fibers of which are unbroken but shredded, and then formed into a board and waterproofed. A binder such as talc, alone or mixed with ground asbestos, or soda ash, may be used, and hair or the like may also be added. The dried board is waterproofed by means of a mixture of calcium acetate and aluminum sulphate.—A. P.-C.

TECHNICAL SECTION, PAGE 56

Manufacture of Millboard from Tanyard Refuse. A. T. Masterman, Eng. pat. 182,884, Apr. 6, 1921. Waste wattle bark or other tanyard refuse is crushed for 20 to 30 minutes in an edge runner in the presence of a solution of sodium carbonate or other alkali, and then, after admixture with about 20 to 30 per cent of waste paper pulp, is beaten for about 2 hours with water at 45 to 50° C. Engine size and alum, or gelatin alone, are added to the pulp during the beating process, and after leaving the beater the pulp is manufactured into board by ordinary processes.—A. P.-C.

Manufacture of Roofing Felt. H. Wade and Barrett Co. Eng. pat. 166,886, July 7, 1921. Addition to 165,240. The process described in the chief patent is modified, whereby the sheets consisting of mixed watery pulp and comminuted bituminous waterproofing materials are subjected, at a temperature exceeding the softening point of the bituminous material, to a pressure sufficient to reduce their volume by one-half.—A. P.-C.

Saturating Sheets with Bituminous Material. L. Kirschbraun. U. S. pat. 1,417,841, May 30, 1922. A hot bituminous composition is applied in liquid form to one face of a hot dry sheet as it is being wound in a roll.—A. P.-C.

Waterproofed Fiber Board. L. Kirschbraun. U. S. pat. 1,417,836, May 30, 1922. Several plies of fiber board are saturated with a waterproofing composition and united to one another with portland or magnesite cement or other adhesive material. A granular facing material such as gravel may be applied to the exposed surface of the built-up sheet to adapt it for use as roofing.—A. P.-C.

Colored Tissue Paper. F. M. Shuler assignor to A. E. Dubey. U. S. pat. 1,428,064, Sept. 5, 1922. Tissue paper is coated on opposite sides with sizing of different colors which is heated to effect immediate setting.—A. P.-C.

Method of Making Emulsions. L. Kirschbraun. U. S. pat. 1,417,835, May 30, 1922. A bulk supply of emulsion is formed by making a mixture of water and colloidal clay, adding a waterproof adhesive binder, and thoroughly mixing into an emulsion in which the binder forms the internal phase and the water and emulsifying agent the external phase. Further quantities of water and colloidal clay and of binder are separately fed into the bulk supply, the latter being agitated while forming the emulsion.—A. P.-C.

Process of Making Waterproof Composition. L. Kirschbraun. U. S. pat. 1,417,837, May 30, 1922. Bituminous material in the form of discrete particles is suspended in an aqueous mixture which also contains an oxidizing agent such as driers or sulphur to prepare a composition adapted for waterproofing fiber board.—A. P.-C.

Colored Bituminous Composition and Process for Making Same. L. Kirschbraun. U. S. pat. 1,417,838, May 30, 1922. A yellowish brown pitchy material of conchoidal fracture when cold, adapted for making roofing, is obtained by steam distillation of wax tailings.—A. P.-C.

Waterproof Sheet Material. L. Kirschbraun. U. S. pat. 1,417,839, May 30, 1922. A colored emulsified matrix is formed from materials such as clay and pitch from petroleum wax tailings mixed with dyes and fibrous materials of a different color from the matrix material and mottled sheets are formed from the mixture.—A. P.-C.

Method of Waterproofing Paper. F. Moeller. Eng. pat. 184,462, Aug. 1, 1922. The material is waterproofed by treatment with thionyl chloride or sulphur chloride or dichloride in the atomized state. The liquid may be sprayed in a chamber by a sprayer and thence carried by a pipe to the treating chamber through which the paper is passed. The circulating system contains a drying apparatus for separating sulphurous and hydrochloric acids and a blower. The paper may be alternatively passed over a porous block saturated with the reagents; or the latter may be applied by porous rollers dipping into the liquid or by rollers sprinkled with it.—A. P.-C.

Metallized Paper for Making Electric Cables. M. Hochstadter. Eng. pat. 186,363, Mar. 29, 1921. Same as Fr. pat. 533,710 See *Pulp & Paper* 20, 658 (Aug. 3, 1922); *Paper Trade J.* 75, No. 7, 57 (Aug. 17, 1922),—A. P.-C.

Composition for Coating and Impregnating Fiber. E. T. Oakes. U. S. pat. 1,411,371, Apr. 4, 1922. The composition is prepared by heating tung oil to gelatinize it, sub-dividing the product and adding solvent naphtha or other liquid which will cause the finely divided particles to swell in suspension. The product is suitable for water-proofing paper receptacles.—A. P.-C.

Waterproofing Composition. G. A. Richter, W. B. Van Arsdel and D. H. White, U. S. pat. 1,396,527, Nov. 8, 1921. A composition adapted for waterproofing fiber tubes is formed by heating together 25 to 60 parts of gilsonite ,25 to 70 parts of paraffin and 5 to 10 parts of petroleum oil. The mixture melts at 50 to 65° C.—A. P.-C.

Waterproofing Paper. W. Hoskins. U. S. pat. 1,430,998, Oct. 3, 1922. Insoluble soap, e. g., calcium or zinc stearate or resinate, is sprinkled or dusted on the surface of paper and all except the adhering particles are then removed.—A. P.-C.

Asbestos Paper. J. Fox and Turner Bros. Asbestos Co., Ltd. Eng. pat. 166,799, June 17, 1920. Thin asbestos paper suitable for insulating or tape for electric purposes is reinforced with Japanese tissue paper secured thereto by starch, gum, varnish, shellac, size, or the like.—A. P.-C.

Waterproofing Paper. L. Kirschbraun. U. S. pat. 1,401,791, Dec. 27, 1921. A paper stock which can be felted on a paper machine is formed of fibrous pulp and a waterproofing emulsion which may contain asphalt or coal-tar pitch, clay and water.—A. P-C.

Waterproofing Composition for Use on Fibrous Material. A. O. Tate. U. S. pat. 1,400,579, Dec. 20, 1921. A waterproofing composition adapted for use on paper is formed of an aluminum soap, albumin, zinc oxide, and carbon tetrachloride or gasoline.—A. P.-C.

Waterproofing Composition for Paper. J. R. Hyer. U. S. pat. 1,405,220, Jan. 31, 1922. The mixture contains paraffin, rosin and magnesium sulphate.—A. P.-C.

Oiled Paper. S. Sparks. U. S. pat. 1,444,217, Feb. 6, 1923. Oil is applied to portions only of a strip of paper and the paper is then passed over rollers and wound to permit diffusion and penetration of the oil.—A. P.-C.

Rendering Paper Transparent. O. Poeppel. U. S. pat. 1,444,082, Feb. 6, 1923. Paper for window envelopes is coated with a lacquer at certain portions and then passed through a heated chamber where the heating and motion of the paper cause impregnation with the lacquer and render the paper transparent.—A. P.-C.

Moisture-Proof Creped Paper. A. E. Currier. U. S. pat. 1,390,276, Sept. 13, 1921. Paper is brought into contact with a wax block just before being acted on by a creping roll.—A. P.-C.

Manufacture of Filter Paper. F. E. Thomas and J. Baker Sons and Perkins, Ltd. Eng. pat. 189,562, Sept. 6, 1921. Filter paper, capable of retaining very fine coarsely-dispersed precipitates and colloidal matters, is prepared in the usual manner from pulp incorporated with 5 to 30 per cent (calculated on the weight of air-dry pulp) of finely ground decolorizing carbon.—A. P.-C.

Vulcanizing Rubber Latex Paper. F. Kaye. Eng. pat. 191,446, Oct. 8, 1921. Addition to 167,935. A small quantity of a sulphide of an alkali or alkaline-earth metal is added to the rubber latex, e.g., 12 oz. of sodium sulphide to one gallon of latex containing 30 per cent of rubber. The treated latex is then diluted and added to the beaten pulp in the manner previously described. A suitable quantity of acid or hydrolyzable salt is then added to precipitate the rubber on the fiber and to decompose the dissolved sulphite. The colloidal sulphur thus produced effects the vulcanization of the rubber during the subsequent drying operation. Substances capable of accelerating vulcanization may be introduced into the beaten pulp either before or after the addition of the latex.—A. P.-C.

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CONTROLLING A BUSINESS WITH A BUDGET

By George E. Frazer, of Frazer and Torbet

The phrase "budgetary control" may seem unwieldy to many. It really means accounting in terms of the future. "How much more business must I do in the coming year?" That is the first question that arises when thinking of applying budgetary control. "What is this extra business to cost?" That is the second query. "How shall these costs be distributed?" That is the third consideration.

Thus, budgetary control does not necessarily mean only the cutting of expenses. It implies more income brought about by larger outlay. It is the sign of growth. The manager, having determined to acquire control through the budget by planning to spend more money in order to make more money, not only arranges that his budget stipulate how much more money shall be spent but gages the increase in sales and decides what commodities and territories must make this gain.

More Than Schedule of Expense

The budget plan which, experience shows brings the best results is not solely a schedule of expenses. The budget that best brings control is not one which deals with the future solely on the figures of the past. To plan effectively for control through the budget, there must first be a realization that the organization to which it is to be applied must be well defined; that the definition and execution of the policies of the organization must be separate and distinct functions; that the budget varies with the forms of organization; and that the true purpose of the budget is the stimulation of growth.

Whether the business establishment is large or small the principle of the budget is needed. And the point of this principle is increase in sales, profits, or both. Success comes to that business which thinks more of bigger and better business than of smaller expenses. Business success is brought about largely by enlarging expenses wisely.

The small merchant, as an example, has learned during the past few years to estimate the future by requiring a rise in the volume of sales. His letter and order files still serve him as tools of the past with which to scan and measure the future; precedents and habits still bind him, but he is beginning to see the economy and logic of viewing his business as growing in definite proportions to the future.

The tendency of the small merchant or manufacturer to guess the details of his budget has given way, in many instances, to careful consideration of futures in each income and expense account. This change was forced in part by the exactions of the various forms of income tax. Advertisement has also played a deeply important part. Data supplied by advertising experts has formed a basis on which to compute funds for future publicity. The small merchant or manufacturer thus has been compelled to think in terms of the future. He has become aware that since his business is small his budget must be simple, that it must comprise only essential items as to expense, sales and other forms of revenue.

If three salesmen are in the employ of the small merchant he probably can best control for the months to come through his budget by using terms which stand for these men. The goods they sell find no place in control through the budget. The small merchant must deal in personalities when he controls the actions of his salesmen or other employees. Control by means of the budget must be based on the increase—the specific gain—in the respective sales totals of these three men.

When the budget, say of Webber, Murdock and Company of Tessville, is in the making, the principal consideration is—"How much more shall each of our three salesmen sell during the coming year?" Weighing what each has done and is capable of doing, it may be estimated that one salesman shall sell 20 per cent more, another 25 per cent more, and the third 35 per cent more.

Planning to Effect Increases

"How shall these increases be effected?" This is the second consideration and it must be decided whether the increase shall be brought about by advertisement, by higher wages, by bonuses, by contests for prizes, by low-price campaigns, by improvements in interior and exterior displays, by renovation or renewal of equipment, and by other accepted methods. But when the chiefs of great mercantile establishments prepare their budgets they think in terms of men who are specialists, that is, heads of departments. Naturally the larger the establishment, the more difficult it is to build the budget in relation to all the salespersons.

Through the budget of his sales and future organization, the small merchant or manufacturer divorces policy making from executive work, fixes responsibility in his organization, and sets future estimates in definite terms of individual responsibilities within his present organization. Moreover, by means of the budget, the chief executive shows his executives from time to time their actual sales and actual expenses as compared with the original estimates, and rewards them accordingly.

It has only been during the latest decade that the larger merchants and manufacturers have seen the necessity for estimating future sales and expenses accurately for at least a year ahead.

BUDGET OF SELLING EXPENSE

Month _____ Season _____

Item	First Appropriation	Percentage Original Estimated Sales	Add	Deduct	Present Appropriation	Percentage Present Estimated Sales	Original Estimated Sales	Add	Deduct	Present Estimated Sales

REPORT ON BUDGET OF SELLING EXPENSE

_____ Department Date _____

Item	First Appropriation	Add	Deduct	Final Appropriation	Disbursements			Contracts Outstanding for Salaries and Wages	Balance Available for Transfer On Contracts
					Cash	Credit	Balance Undisbursed		

VITAL LINKS IN BUDGETARY CONTROL

These forms—similar to those in use in other departments besides the sales department—illustrate two elements essential in a budget-controlled business: budget figures to point the way to an increase in volume; and a control of the expenditures required to obtain that increase, brought about through periodical reports.

Report of Sales for Month of _____ 19 Date _____ 19

UNIT	Current Month	Estimated Current Month	Percentage of Variation	Last Month	Percentage of Variation	Current Year to Date	Estimated Current Year	Percentage of Variation	Last Year to Date	Percentage of Variation
Southern Division										
Northern Division										
Eastern Division										
Branch 1										
Branch 2										
Branch 3										
Branch 4										

REPORT ON SELLING EXPENSE Month of _____ Date _____ 19

	Current Month	Estimated For Current Month	Percentage of Variation	RATIO Estimated Expense to Sales	RATIO Actual Expense to Sales	RATIO Current Year Expense to Sales to Date	RATIO Last Year Expense to Sales to Date
Southern Division							
Northern Division							
Eastern							
Branch 1							

Date

GENERAL MANUFACTURING COMPANY

Statements of Profit and Loss
Actual and Estimated as of Dates Stated

	Actual 1921	Estimated 1922	Actual 1922
Gross Sales			
Returns and Allowances			
Net Sales			
Cost of Goods Sold			
Gross Profit on Sales			
Operating Expenses			
Selling			
Financial			
Executive			
Corporate			
Total			
Net Operating Profit			
Non-Opearting Income			
Gross Income			
Non-Operating Expense			
NET INCOME			

Date _____ 19

GENERAL MANUFACTURING COMPANY

Actual and Estimated Balance Sheet
as of the Date Specified

	Actual Dec. 31, 1921	Estimated Dec. 31, 1922	Actual Dec. 31, 1922
Current Assets			
Deferred Charges			
Fixed Assets			
Intangible Assets			
Total Assets			
Current Liabilities			
Fixed Liabilities			
Deferred Credits			
Total Liabilities			
Proprietorship			
Total Liabilities and Proprietorship			

THE ONLY WAY IN WHICH BUDGETARY CONTROL IS EFFECTIVE

There must be a constant check of the budget with results—the forms for estimated financial statements and the monthly reports of sales and selling expense are shown here. Thereby is obtained what Mr. Fraser styles "an accounting plan by means of which the organization is held accountable."

They have recognized and applied this idea by means of budgetary control; that is, by controlling expenditures based not solely on costs of operation and maintenance but on the volume of expansion of sales as well. In this matter of budgetary control, the business men of this country trail those of England.

All business men, however, now plan in terms of the future. Present-day business practice is to accumulate elaborate accounts, statistical records, and files, because this information enables executives to plan future decisions as circumstances arise from day to day.

Large enterprises, particularly railways and other public utilities, have learned the necessity for making, not day by day but months ahead, careful and accurate plans in terms of future accounts—that is they have prepared budgets of future income and expenditures. Many small concerns such as the small merchant and the small manufacturer, on the other hand, rely too much on unrelated future plans based largely on the personal experiences of the executives who are forced to make daily decisions from inadequate information.

Budgetary control centers around three considerations: first, an accountable business organization; second, an accounting plan by means of which the organization is held accountable; and third, the business budget itself, so constructed that it forms a network of future accounts in terms of organization responsibility.

All discussion about budgetary control necessarily centers about these three factors underlying it. But it is one thing to list them in this abstract fashion and quite another to see them in operation. Perhaps I could do no better in visualizing these factors than to show just how they worked in the installation and upbuilding of budgetary control in a garage in a middle-western town of 7,000 inhabitants. This is an example of how a small business may be controlled by means of a budget and by the fixation of responsibility within an organization.

The owner of the business had undertaken to do too much without a responsible organization. He had acquired subagencies for three automobile companies. He operated a repair shop, a service station, a storage warehouse, and a taxi or livery service. All these were parts of his small business. In none of these divisions had responsibility been fixed. Expenses, income, sales and stock were not controlled as they should have been.

Fixing Responsibility a Basic Step

The affairs of the business finally became so bad that the employment of an accountant was vitally necessary. One of the first steps the accountant took to remedy conditions was to place one of three automobile salesmen in charge of the auto sales department. This man was made responsible for the conduct of his department. In the repair shop, where there were one first-class mechanic and seven minor workmen, the mechanic was made foreman. This was the second step in the fixing of responsibility. One of the seven less skilled workers was placed in charge of the cab or livery department. Responsibility for the service and storage departments was similarly centered.

Survey of the business showed that its livery service was too large for casual administration and too small for intense operation. On the accountant's advice the livery business was abandoned. Another attempt at simplification was the reduction of automobile agencies from three to two. Heretofore the owner of the business had sold cars on a salary basis. He was put on commission.

Having established responsibility for the administration of each department three property accounts were set up after careful inventories had been taken. Each department head was held responsible for the purchase, maintenance, and sales of the property under his jurisdiction. Thus, for example, the amount of devices or equipment necessary to the auto sales department was governed by the property account set for it. This plan was applied in like manner to the service, repair, and storage departments. Each of these property accounts scheduled in detail the contrivances peculiar to it. These property accounts were simple; none of them had an elaborate classification.

The head of each department was required to submit a report once a month showing the current value, amount, and condition of the property in his charge. In this way the physical condition of the business was constantly under scrutiny. There was practically no opportunity for negligence, extravagance or any other loss.

As a part of the control thus established, expense accounts were maintained for every phase of the business. Two forms of expense account were maintained for each department. Each department head was required—as part of his accountability—to submit monthly accounts as to expenditures, one for wages and one for supplies. Thus these six expense accounts insured perfect control.

The next, perhaps the most important, step in the organization of this business was to require each department manager to submit an estimate or report as to expected gross gain in sales for the following month on the twentieth day of each month. By means of this—the sales phase of control through the budget—each manager was held responsible by his own estimate for an increase in the business of his department.

This method of control not only guides expenses but provides for a gain in income by making each department chief responsible for his expenditures and also for what his department earns.

During the application of this plan it was discovered that the repair department did not properly inspect the cars of customers. For this reason the volume of income from this source was not as great as it might have been. Prior to the appointment of the foreman and the fixation of authority and responsibility in him, the method of inspection was lax. Nobody was in charge. The department "ran" itself. But as soon as the foreman realized that he was responsible not only for the expense but for the income of the repair shop as well, he exerted himself and urged the men under him "to make a good showing." This plan enabled the foreman to come into direct contact with customers. They learned to rely on him.

System Eliminated Petty Graft

Controlling the service department practically eliminated petty graft. The head of this department, because of his responsibility, was eager to improve the service and to swell the income of the department. He stopped the practice of "tipping." The quality of service to a customer was not thereafter gaged by the size of his tip. A constant watch was kept to prevent loss by leakage or other forms of laxity. Forms were used showing the amount of supplies received, sold, and on hand.

By this plan the management—through the control established—was able to determine the number of employees to be released before a period of "slow business." Previously the owner had been compelled to retain idle men until long after the arrival of slack seasons.

Before the reorganization of this business—before the management had established control through the budget—the net annual income was $3,000. During the first year of reorganization the annual income was $30,000.

This was but one example out of many others. It shows the business man's necessity of dealing with the future. There are many illustrations equally convincing.

Controlling Business on Sale Increases

The larger the public utility the greater its need to control its business—its future—by means of the budget on the basis of an increase in sales. Those utilities which have become greatest in scope are those which have dealt with the future. The present tendency of small utility companies, especially in the United States, is to delegate their management to large engineering concerns that know how to apply budgetary control. The small corporations thus become subsidiaries of the larger ones. Other examples of successful contact with the future are shown in the experience of mail order and chain store concerns, department stores, packing

plants, petroleum and construction companies. All these, because of their scope and character, are forced to buy in bulk for future needs. But the point is, and it is often overlooked, that the small business has this same imperative need for budgetary control.

The exact nature of the budgetary control is largely a matter of the scope and nature of the business. The small business, even as small as the garage business cited in the illustration, can deal with individual employees; the large business must either deal with commodity or territorial heads. But in dealing with any of these factors the organization of the business must be determined and considered. Experience has shown that the control exercised must be in terms of the actual organization.

The first essential in establishing control through the budget is to separate the function of direction from that of execution. It has been the experience—bitter in most instances—of large establishments that to merge the duties of the directors with those of the executives is to cause confusion and friction. On the other hand, the board of directors sometimes is not sufficiently acquainted with the routine of the business to know its wants intimately. Petty politics sometimes play a part in the formation of the policies of such a concern.

Thus the first phase that should be discussed by the board of directors in establishing budgetary control is the fixation of responsibility. Who shall do what? Once the duties of an executive are defined, responsibility must reside in him alone. There must be no shifting nor fusion of authority. The executive must solve his own problems and be responsible for the work of his subordinates. The chief executive is responsible only to the board of directors. The board of directors is the first and last authority. It fixes policies and rewards according to the results obtained.

Control by means of the budget in an organization of this kind is best obtained only when the board of directors approves the budget and delegates the application of it to the executives. Present-day practice is directly opposite. The policies of the corporation usually are outlined nominally by the board and then changed from day to day by the president. Under these conditions the budget lacks stability; its final disposition rests not with its creators but with the chief executive or his assistants. When the president refers an item of the budget to the board his action is usually mechanical. Responsibility thus is centered in one man and the machine therefore is not as reliable as it should be.

The achievements of such organizations as the United States Steel Corporation or the various Standard Oil Companies are due in a degree to the separation of the duties of the chairman of the board and his directors from those of the president. This does not mean that the president should not advise nor offer suggestions. But there is a difference in giving advice and in applying it, in suggesting policies and in making them.

How Budgetary Control Is Best Applied

When the board of directors is large in personnel or when the directors live or work far apart, it is well to organize an executive—generally the president—as the creator of policies or to establish permanently a policy committee of local directors. The same thing should happen when the board is indifferent, incapable, or unwilling to make the policies.

Budgetary control is best applied when a positive line of authority is established. The president, according to best practice, delegates his power to not more than five or seven men. These delegate their authority to a few men of what are called the third class, and these in turn extend their powers to the fourth, and so on. But the executives of each grade must be responsible for that grade. A budget, say of selling expenses, is not created, in the best practice, and applied without this line of authority. Unless these distinctions are established, the responsibility for small details is likely to rest on one man, generally the supreme head, and this hinders him in the consideration of the larger phases of the business.

If, as an illustration, the president, who may be responsible for selling expenses, delegates this duty to 12 others—to the advertising manager, to the sales manager in the East; to the sales manager in the West, to a cashier, and the like—authority is so distributed as to impoverish it. There is such a complete delegation of the president's authority with respect to selling expenses that budget control on those expenses is practically impossible. Budgetary control is difficult unless there is a practicable line of authority. Otherwise, as in the illustration just cited, there can be too much "passing the buck."

Three First Steps to Budgetary Control

The intrinsic idea of the budget is to establish a set of estimates as to future accounts that will reflect the policies as a guide to those who have definite responsibilities in executing those policies. It is well, therefore, to emphasize these facts; there can be no control through the budget, no permanently efficient policy without the line of authority to assist the chief executive; there can be no accountability or responsibility excepting in units that are controllable. It is idle to consider the budget in relation to the responsibility of the president alone. He, of course is not controllable excepting in terms of his own resignation.

Granted an organization that may be held accountable, the next consideration in relation to budgetary control is a method of accounting to make the different divisions of the business accountable. Many accounts bear little or no relation to organization or control. Balance sheets, profit and loss statements, and all other analysis as to expense, for instance, must fit the organization which they serve.

Given a territorial organization, one that operates by regions or districts, under a president, a vice-president in the East and a vice-president in the West, it is necessary that the balance sheets be specific, that they be made out in relation to the activities of each officer and of each region. Moreover, there must be separate profit and loss statements as to the president and the vice-presidents, and the territories under their control.

When the organization is more functional than territorial in character; that is, when the president is assisted by a vice-president of production, a vice-president of sales, and a vice-president of finance, the best practice demands that the balance sheets and income statements be designed to reflect the responsibility of each vice-president. As a rule, this is not done even by the largest companies. It is clear that to derive information as to the operation of each department the balance sheets must be designed in accordance with the specific requirements of each. This is also essential to control through the budget.

The balance sheet and income statement generally used for all classifications are those reflecting the responsibility of the treasurer. It is evident that such a sheet may not properly convey the responsibility of the vice-president of sales nor of the vice-president of production.

Admitting that the statements reflect the specific responsibility of the vice-president in charge of production, there should also be established a classification of expense that reveals his accountability. The only way to devise a classification of expense is to chart the organization. The purpose of the classification of expense is to reflect the accountability of those in control in the organization. It is true that most organizations admit they are not accountable in the sense in which I am using accountability in this article. It is only when the executive in charge of sales is made to feel his accountability, however, that he usually requires a classification of accounts to show exactly how he has done his work.

Theoretically, companies are organized either functionally, territorially, or along the lines of commodities. In practice they generally are formed along all these lines. No attempt should be made, according to the best practice, to control a concern by means of the budget until its sales, purchases, and expenses have been classified in relation to its exact present organization.

(*Continued on page 66*)

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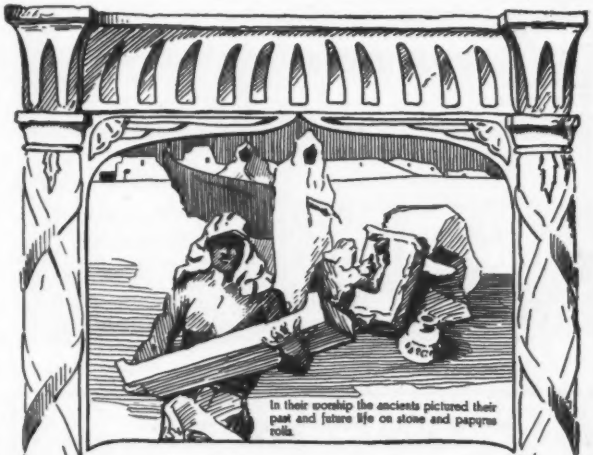

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NEW YORK IMPORTS

WEEK ENDING AUGUST 4, 1923

SUMMARY

News Print .....927 rolls
Printing Paper.....178cs., 101 bls.
Hangings .....26 bls., 20 cs.
Wall Paper .....884 rolls, 773 bls., 2 cs.
Cigarette Paper .....1,174 cs.
Kraft Paper .....668 bls.
Packing Paper .....2,606 bls., 1,925 rolls, 1 cs.
Wrapping Paper .....171 bls., 2 cs., 2,467 rolls.
Tissue Paper .....7 cs.
Writing Paper .....2 cs.
Drawing Paper .....20 cs.
Tracing Paper .....2 cs.
Blue Print Paper .....34 rolls
Photo Paper .....16 cs.
Scrap Coated Paper .....34 cs.
Basic Paper .....57 cs.
Filter Paper .....100 bls.
Coated Paper .....127 bls.
Parchment Paper .....4 cs., 4 rolls
Miscellaneous Paper ....628 bls., 2,726 rolls, 57 cs.

CIRGARETTE PAPER

Liggett & Myers Tobacco Co., Lafayette, Havre, 20 cs.
R. J. Reynolds Tobacco Co., Olen, St. Nazaire, 640 cs.
de Manduit Paper Corp., by same, 251 cs.
American Tobacco Co., Olen, Bordeaux, 1,200 cs.
Rose & Frank, Vincent, Havre, 40 cs.
P. J. Schweitzer, Nevisian, Antwerp, 52 cs.
P. J. Schweitzer, Belgenland, Antwerp, 51 cs.

WALL PAPER

The Prager Co., Finland, Hamburg, 884 rolls.
National City Bank, Finland, Bremen, 767 bls.
R. F. Downing & Co., Mauretania, Liverpool, 6 bls.
Cowtan & Sons, Inc., by same, 1 cs.
A. Murphy & Co., Majestic, Liverpool, 1 cs.

PAPER HANGINGS

W. H. S. Lloyd & Co., Pr. Garfield, London, 12 bls.
W. H. S. Lloyd, by same, 17 cs.
W. H. S. Lloyd, Mauretania, Liverpool, 8 bls.
W. H. S. Lloyd & Co., by same, 14 bls.
A. C. Dodman, Jr., by same, 5 cs.

PRINTING PAPER

Wilkinson Bros. & Co., Inc., Nevisian, Antwerp, 18 cs.
B. F. Drakenfeld & Co., Franconia, Liverpool, 16 cs.
J. B. Harris & Co., America, Bremen, 73 bls.
Perry Ryer & Co., Columbia, Glasgow, 89 cs.
Perkins, Goodman & Co., by same, 55 cs.
H. Reeve, Angel & Co., Inc., America, Bremen, 28 bls.

NEWS PRINT

Parsons & Whittemore, America, Bremen, 826 rolls.
Chemical National Bank, Ohio, Hamburg, 101 rolls.

KRAFT PAPER

M. O'Meara Co., Ohio, Hamburg, 340 bls.
National City Bank, by same, 175 bls.
J. P. Heferman Paper Co., Drottningholm, Gothenburg, 153 bls.

PACKING PAPER

Mischell & Williams, Argentina, Trieste, 868 bls.
New York Trust Co., by same, 784 bls.
New York Trust Co., by same, 784 rolls.
Globe Shipping Co., by same, 74 bls.
Bernard Judae & Co., Mt. Carroll, Hamburg, 44 bls.
J. B. Moors & Co., Tyrrhenia, Hamburg, 836 bls.
J. B. Moors & Co., by same, 1,141 rolls.
Geveart Co. of America, Belgenland, Antwerp, 1 cs.

WRAPPING PAPER

C. Steiner, Bremen, Bremen, 12 bls.
R. Bushman Co., America, Genoa, 2 cs.
Melby, Kuttroff & Co., Drottningholm, Gothenburg, 22 bls.
C. K. MacAlpin & Co., Mt. Carroll, Hamburg, 58 bls.
C. K. MacAlpin & Co., by same, 1,831 rolls.
Wilkinson Bros. & Co., Inc., Schodack, Rotterdam, 636 rolls.
C. G. Keferstein, Finland, Bremen, 79 bls.

TISSUE PAPER

Meadows Wye & Co., Franconia, Liverpool, 7 cs.

WRITING PAPER

Erstein & Co., Rochambeau, Havre, 2 cs.

DRAWING PAPER

H. Reeve, Angel & Co., Majestic, London, 1 cs.
Keuffel & Esser, Mt. Carroll, Hamburg, 17 cs.

TRACING PAPER

Keuffel & Esser, Mt. Carroll, 2 cs.

BLUE PRINT PAPER

Keuffel & Esser, Mt. Carroll, Hamburg, 34 rolls.

PHOTO PAPER

Geveart Co. of America, Nevisian, Antwerp, 4 cs.
Geveart Co. of America, Belgenland, Antwerp, 12 cs.

SURFACE COATED PAPER

Geveart Co. of America, Belgenland, Antwerp, 15 cs.
Geveart Co. of America, Nevisian, Antwerp, 19 cs.

BASIC PAPER

L. de Jourge & Co., Belgenland, Antwerp, 22 cs.
National City Bank, by same, 10 cs.
F. Heujes, Jr., Pr. Roosevelt, Bremen, 25 cs.

FILTER PAPER

H. Reeve, Angel & Co., Inc., Majestic, London, 11 cs.
J. Manheimer, Majestic, Bordeaux, 89 bls.

COATED PAPER

Globe Shipping Co., Pr. Roosevelt, Bremen, 102 cs.
F. Heujes, Jr., by same, 25 cs.

PARCHMENT

Irving Bank Columbia Trust Co., Belgenland, Antwerp, 4 cs.
Irving Bank Columbia Trust Co., by same, 4 rolls.

PAPER

Wilkenson Bros. & Co., Inc., Ohio, Hamburg, 69 bls.
Wilkinson Bros. & Co., Inc., by same, 632 rolls.
National City Bank, by same, 91 rolls.
Gallagher & Ascher, by same, 126 rolls.
Poland Paper Co., by same, 374 rolls.
Republic Bag & Paper Co., by same, 153 rolls.
Republic Bag & Paper Co., by same 654 rolls.
P. H. Petry & Co., Finland, Hamburg, 20 cs.
P. H. Petry & Co., Mt. Carroll, Hamburg, 8 cs.
P. H. Petry & Co., Mt. Carroll, Hamburg, 345 bls.
Wilkinson Bros. & Co., Inc., Drottningholm, Gothenburg, 39 bls.
C. G. Winans, by same, 16 bls.
C. G. Winans Co., by same, 115 rolls.
H. Reeve, Angel & Co., Inc., by same, 5 cs.
Japan Paper Co., by same, 16 cs.
C. K. MacAlpine & Co., by same, 16 bls.
C. K. MacAlpine & Co., by same, 128 rolls.
M. M. Cohen, by same, 207 rolls.
M. M. Cohen, by same, 85 bls.
Melby, Kuttroff & Co., Bergensfjord, Kristiania, 135 rolls.
Irving Bank Columbia Trust Co., by same, 111 rolls.
Erstein & Co., Rochambeau, Havre, 4 cs.
J. Manheimer, by same, 48 bls.
H. Reeve, Angel & Co., Majestic, London, 4 cs.
Chemical National Bank, Columbia, Glasgow, 11 bls.
Coenca Morrison & Co., Lafayette, Havre, 6 cs.
A. Murphy & Co., by same, 2 bls.
Judson Freight Forwarding Co., by same, 3 cs.
Gallagher & Ascher, by same, 8 cs.
Whiting & Patterson, by same, 6 cs.

RAGS, BAGGINGS, ETC.

E. J. Keller Co., Inc., Rheinland, Hamburg, 51 bls. rags.
Castle & Overton, Suffren, Havre, 128 bls. rags.
Castle & Overton, by same, 108 bls. bagging.
Goldman Sachs & Co., Olen, St. Nazaire, 106 bls. rags.
New York Trust Co., Olen, Bordeaux, 301 bls. rags.
International Acceptance Bank, America, Bremen, 211 bls. rags.
Garfield National Bank, Mt. Carroll, Hamburg, 119 bls. rags.
Ayres Oddy & Co., Casper, Santos, 18 bls. cotton waste.
W. D. Lane & Co., Italy Maru, Genoa, 21 bls. cotton waste.
New England Waste Co., by same, 128 bls. cotton waste.
D. M. Hicks, Vincent, Havre, 29 bls. linen waste.
E. J. Keller Co., Inc., Nevisian, Antwerp, 144 bls. flax waste.
Irving Bank Columbia Trust Co., by same, 472 bls. flax waste.

OLD ROPE

International Purchasing Co., N. Amsterdam, Rotterdam, 29 coils.
Chemical National Bank, by same, 92 coils.

WOOD FLOUR

B. L. Soberski, Bergensfjord, Kristiania, 3,000 bags.
A. Kramer & Co., Inc., Ohio, Hamburg, 755 bags.
A. Kramer & Co., Inc., Tyrrhenia, Hamburg, 384 bags.

WOOD PULP

Tidewater Papermills Co., Bornholm, Liverpool, N. S., 12,558 bls. wood pulp.
M. Gottesman & Co., Inc., Ohio, Hamburg, 333 bls. wood pulp.
National City Bank, N. Amsterdam, Rotterdam, 1,679 bls. wood pulp.
Castle & Overton, by same, 266 bls. wood pulp.
Castle & Overton, Rheinland, Hamburg, 550 bls. wood pulp, 110 tons.
Castle & Overton, Bremen, Bremen, 525 bls. wood pulp.
H. Hollesen, by same, 747 bls. wood pulp.
Nilsen, Lyon & Co., Inc., Bergenfjord, Kristiania, 300 bls. dry sulphite pulp.
Johanesson, Wales & Sparre, Inc., Drottningholm, Gothenburg, 500 bls. dry sulphite pulp.
R. F. Hamond, Inc., by same, 1,500 bls. wood pulp, 300 tons.

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M. Cantine Co., Olen, Bordeaux, 532 bags.
A. Hurst & Co., Majestic, London, 100 bags.
A. Hurst & Co., Inc., Mauretania, Liverpool, 40 bbls.
Art Horn Corp., Mt. Carroll, Hamburg, 151 bags.

(*Continued on page 66*)

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New York Market Review

OFFICE OF THE PAPER TRADE JOURNAL,
WEDNESDAY, AUGUST 8, 1923.

Evidences of an increase in demand which made themselves felt for the first time in several months in the market last week continued during the week which has just passed. There now seems to be little doubt that the market is coming back and that by the first of next month business will be better than it has been in a long time.

Everyone is preparing for fast trading during the fall. The industry is in better shape than it has been at any time since the outbreak of the war and there is no reason why it should not be in for a normal but prosperous time during next autumn and winter. There is a general undertone of optimism throughout the entire trade which is doing much to keep things in excellent shape.

While fine papers remained just about the same during the past week there were reports from some quarters of slight increases in the demand. These grades have really had about the best summer they have had in a long time and any improvement is just so much business above the normal. There has been no real, genuine depression in them. Prices, however, have remained the same, although there is a general feeling that there will be some upward revisions when the fall buying sets in.

Book paper, which has also moved pretty satisfactorily all during the hot weather, is still in the same normally good demand that it has been. Dealers say that there is room for improvement but that at the same time they have no cause for complaint. Exports increased a trifle and this is taken as a favorable sign by authorities.

News print is still in good demand, probably the best of any article on the market. Rolls in particular are getting attention. Manufacturers say that this is due to the fact that newspapers have had a good amount of advertising during the year and this has tended to keep up their consumption of news print. Sheet news is also moving fairly well in the open market where a great deal of trading is done in this commodity. Side runs still lag a little behind the bigger grades but it is said to be in good enough demand to keep it in regular motion.

Large buyers of wrapping paper were reported to be making inquiries during the week about fall prices and shipments. Dealers say that at the same time there has been a slight increase in the demand for kraft and it is thought that business will be excellent within a short time. Prices remained about the same, however, and dealers say that there is little chance of any change at the present time.

Coarse papers are in about the same condition as kraft. The demand has improved slightly during the week, but not enough to cause any change in prices. Inquiries have also increased in this quarter of the market and dealers believe the demand will freshen considerably by the first of September.

Although tissue is still moving rather slowly there is every reason to believe that it is going to sell much faster within a comparatively short space of time. Consumers are exhibiting more interest than they have in several weeks and manufacturers are getting their machines tuned up to handle a capacity production.

Board has also been moving a little more speedily, although it is still rather slow. The big buyers are not as interested as they should be, it is reported, but they will not be able to hold off very much longer since their supplies are running low. The new paper exchange which is being gotten under way by a group of prominent board men will have a distinctly stabilizing effect on the board market, it is said, and it will probably be operating within a short time. Most of the board men feel that this will be of great benefit to them when the fall business begins to come in strongly.

Mechanical Pulp

The dry period to the north is keeping the mills busy buying mechanical pulp and although there has been no sharp upward revision in prices it is expected to come momentarily. The general feeling in the market is one of optimism and there is little doubt that mechanical pulp is in for a prosperous period.

Chemical Pulp

Chemical pulp has been a little better this week and the slightly lower prices which went into effect about ten days ago have had the desired effect of bringing in more buyers. Dealers report a flood of inquiries and they are preparing to do a good business in the fall.

Old Rope and Bagging

Old rope in the higher grades continued to be in fairly good demand during the week, with the lower grades improving more slowly. Importations have increased somewhat although they have not yet reached the normal point owing to a heavy demand in Europe.

Rags

Rags are a little better this week, but they are not in as good demand as it is expected they will be within the next few weeks. Mills are beginning to show a little interest in buying for the fall trade and dealers say they expect the situation will clear up very soon now.

Waste Paper

Although waste paper still continued to be in good demand during the week and prices misbehaved, there were reports in the trade that a group of dealers had anticipated the fall demand by a week or so and put up their prices. Just what justification there is for this rumor is hard to say, but the fact remains that waste paper is in pretty good shape so far as an observer can tell.

Twine

Twine was in a little better demand so far as paper mills were concerned last week, but prices remained just about the same with no real alterations.

Brazilian Market for Paper

The Brazilian Market for Paper Products, being Trade Information Bulletin No. 127 has just been issued by the Paper Division of the Bureau of Foreign and Domestic Commerce, Washington, D. C. In issuing this Bulletin Director Julius Klein says:

"This is the first of a series of bulletins to be issued on the paper markets in various countries or geographical groups. The information has been obtained from American consular officers and Department of Commerce representatives through a specially prepared questionnaire, which will tend to make the bulletins somewhat uniform. The data on Brazil, as a whole, supplied by the office of the commercial attaché at Rio de Janeiro, have been substantiated and supplemented by reports of the consuls on local conditions within their jurisdictions.

"The purpose of this bulletin is to present material of general interest to the trade at large. Special problems of individual exporters will be gladly investigated and answered in detail if presented to the Paper Division of the Bureau."

Peruvian Paper Imports

[FROM OUR REGULAR CORRESPONDENT.]

WASHINGTON, D. C., August 1, 1923.—While in March Peruvian imports of paper and paper products from the United States exceeded those from all other countries, the April figures show that the bulk of such imports again came from Germany, 2,043 cases being marked as coming from Germany out of a total importation of 2,970 cases, according to the report received by the paper division of the Department of Commerce on the Peruvian paper situation.

Statistics for the first 4 months of the year show paper imports distributed as follows: Germany, 4,561 cases; United States, 1,463 cases; Belgium 516 cases; and Great Britain 296 cases.

Market Quotations

PAPER STOCK SECURITIES

New York Stock Exchange closing quotations August 7, 1923.

	BID	ASKED
American Writing Paper Company, pref.	7½	8
International Paper Company, com.	32½	32¾
International Paper Company, pref., stamped.	64	65
Union Bag & Paper Corporation	61	65

Paper

F. o. b. Mill.

Ledgers	11.00 @38.00
Bonds	9.00 @45.00
Writings—	
Extra Superfine	14.00 @30.00
Superfine	14.00 @30.00
Tub Sized	10.00 @15.00
Engine Sized	8.00 @11.00
News—f. o. b. Mill—	
Rolls, contract	3.80 @ 4.00
Rolls, transit	4.00 @ 4.25
Sheets	4.25 @ 4.50
Side Runs	3.50 @ 4.15
Book, Cased—f. o. b. Mill	
S. & S. C.	7.25 @ 9.00
M. F.	7.00 @ 8.75
Coated and Enamel	9 .00 @14.00
Lithograph	9.00 @14.00
Tissues—f. o. b. Mill	
White No. 1	.90 @ 1.00
White No. 2	.85 @ .95
Colored	1.15 @ 2.00
Anti-Tarnish	1.50 @ 2.00
Kraft	.95 @ 1.15
Manila	.85 @ .95
Kraft—f. o. b. Mill—	
No. 1 Domestic	6.50 @ 7.50
No. 2 Domestic	6.00 @ 6.50
Imported	6.50 @ 7.00
Screenings	3.25 @ 3.50
Manila—	
No. 1 Jute	8.50 @ 9.00
No. 2 Jute	7.75 @ 8.50
No. 1 Wood	4.75 @ 5.50
No. 2 Wood	4.00 @ 4.50
Butchers	4.25 @ 4.75
Fibre Papers—	
No. 1 Fibre	6.00 @ 6.25,
No. 2 Fibre	5.25 @ 5.50
Common Bogus	3.50 @ —
Card Middies	4.00 @ 5.00
Boards—per ton—	
News	60.00 @90.00
Straw	61.00 @63.00
Chip	57.50 @60.00
Binders' Boards	75.00 @80.00
Sgl. Mla.L1. Chip.	74.00 @80.00
Wood Pulp	70.00 @75.00
Container	70.00 @80.00
Sulphate Screenings—	
Coarse	.80 @ .90
Refined	1.75 @ 2.00
Ground Wood Screenings	20.00 @25.00
Glassine—	
Bleached, basis 25 lbs.	15.00 @16.00
Bleached, basis 20 lbs.	17.00 @18.00
Papermakers' Felts per ton—	
Dry	75.00 @85.00
Saturated	65.00 @75.00
Sheathing Paper, per ton—	
Rosin Sized (red and gray, 30 lbs. per 500 sq. ft.)	55.00 @65.00

Mechanical Pulp

(Ex-Dock)

No. 1 Imported	35.00 @40.00
(F. o. b. Mill)	
No. 1 Domestic	35.00 @40.00

Chemical Pulp

(Ex-Dock, Atlantic Ports.)

Sulphite (Imported)—	
Bleached	4.40 @ 5.00
Easy Bleaching	3.50 @ 3.75
No. 1 strong unbleached	3.30 @ 3.50
No. 2 Strong unbleached	2.85 @ 3.10
No. 1 Kraft	3.25 @ 3.40
Sulphate—	
Bleached	4.00 @ 4.15
(F. o. b. Pulp Mill.)	
Sulphite (Domestic)—	
Bleached	4.50 @ 5.00
Strong unbl'chd	3.10 @ 3.30
Easy Bleaching Sulphite	3.25 @ 3.50
News Sulphite	3.00 @ 3.25
Mitscherelich	3.20 @ 3.30
Kraft (Domestic)	2.10 @ 3.30
Soda Bleached	4.25 @ 4.35

Domestic Rags

New

Prices to Mill, f. o. b. N. Y.

Shirt Cuttings—	
New White, No. 1	12.00 @13.00
New White, No. 2	5.75 @ 6.50
Silesias, No. 1	7.00 @ 7.50
New Unbleached	10.50 @11.00
Washables	4.50 @ 4.75
Fancy	5.50 @ 6.00
Cotton—according to Grades—	
Blue Overall	7.25 @ 7.50
New Blue	4.50 @ 5.50
New Black Soft	4.75 @ 5.25
New Light Seconds	2.75 @ 3.00
O. D. Khaki Cuttings	4.25 @ 4.50
Men's Corduray	3.00 @ 3.50
New Canvas	6.50 @ 7.00
New Black Mixed, Old	2.60 @ 2.80
White, No. 1—	
Repacked	5.50 @ 6.00
Miscellaneous	4.75 @ 5.25
White, No. 2—	
Repacked	3.25 @ 3.75
Miscellaneous	2.75 @ 3.00
St. Soiled, White	1.90 @ 2.10
Thirds and Blues—	
Repacked	2.35 @ 2.60
Miscellaneous	1.90 @ 2.15
Black Stockings	2.75 @ 3.00
Roofing Rags—	
Cloth Strippings	1.10 @ 1.20
No. 1	1.10 @ 1.20
No. 2	1.05 @ 1.15
No. 3	.80 @ .90
No. 4	.80 @ .90
No. 5A	1.00 @ 1.10

Foreign Rags

New Light Silesias	6.00 nominal
Light Flannelettes	6.75 nominal
Unbl'chd Cottons	7.50 nominal
New White Cuttings	9.50 nominal
New Light Oxfords	6.00 nominal
New Light Prints	4.50 nominal
New Mixed Cuttings	2.00 @ 2.50
New Dark Cuttings	1.90 @ 2.10
No. 1 White Linens	10.00 nominal
No. 2 White Linens	6.50 nominal
No. 3 White Linens	5.00 nominal
No. 4 White Linens	3.50 nominal
Old Extra Light Prints	2.00 nominal
Ord. Light Prints	1.75 nominal
Med. Light Prints	1.50 nominal
Dutch Blue Cotton	1.85 @ 2.15
German Blue Cottons	1.65 nominal
Ger. Blue Linens	3.50 nominal
Checks and Blues	1.50 nominal
Dark Cottons	1.30 @ 1.35
Shoppery	1.00 @ 1.05
French Blues	1.75 @ 2.00

Bagging

Prices to Mill F. o. b. N. Y.

Gunny No. 1—	
Foreign	1.20 @ 1.25
Domestic	1.30 @ 1.35
Wool, Tares, light	1.30 @ 1.40
Wool, Tares, reavy	1.30 @ 1.40
Bright Bagging	1.05 @ 1.20
Sound Bagging	.85 @ .95
Manila Rope—	
Foreign	5.95 @ 6.20
Domestic	6.30 @ 6.45
New Bu. Cut	2.15 @ 2.25
Hessian Jute Threads—	
Foreign	2.00 @ 2.25
Domestic	2.00 @ 2.10
Mixed Strings	1.00 @ 1.10

Twines

Cotton—(F. o. b. Mill)	
No. 1	.35 @ .37
No. 2	.31 @ .33
No. 3	.37 @ .39
India, No. 6 basis—	
Light	.20 @ .21
Dark	.19 @ .20
B. C., 18 basis	.41 @ .42
A. B. Italian, 18 Basis	.51 @ .61
Finished Jute—	
Dark, 18 basis	.29 @ .30
Light, 18 basis	.26 @ .27
Jute Wrapping, 3-6 Ply—	
No. 1	.23 @ .24
No. 2	.21 @ .22
Tube Rope—	
4-ply and larger	.15 @ .17
Fine Tube Yarn—	
5-ply and larger	.19 @ .21
4-ply	.20 @ .22
3-ply	.20 @ .22
Unfinished India—	
Basis	.16 @ .17
Paper Makers Twine	
Balls	.13 @ .15
Box Twine, 2-3 ply	.18 @ .19
Jute Rope	.17 @ .20
Amer. Hemp, 6	.33 @ .35
Sisal Hay Rope—	
No. 1 Basis	.15 @ .17
No. 2 Basis	.13 @ .15
Sisal Lath Yarn—	
No. 1	.14 @ .15
No. 2	.11 @ .13
Manila Rope	.18 @ .19

Old Waste Papers

(F. o. b. New York)

Shavings—	
Hard, White, No. 1	3.65 @ 3.80
Hard, White, No. 2	2.75 @ 2.90
Soft, White, No. 1.	2.60 @ 2.80
Flat Stock—	
Stitchless	1.60 @ 1.70
Over Issue Mag.	1.60 @ 1.70
Solid Flat Book	1.55 @ 1.65
Crumpled No. 1	1.30 @ 1.40
Solid Book Ledger.	1.85 @ 1.95
Ledger Stock	1.60 @ 1.70
New B. B. Chips	.65 @ .75
Manilas—	
New Env. Cut	2.25 @ 2.50
New Cut No. 1	1.75 @ 2.00
Extra No. 1 old.	1.45 @ 1.55
Print	.90 @ 1.00
Container Board	.75 @ .85
Bogus Wrapper	.70 @ .75
Old Krafts, machine compressed Bales.	1.75 @ 1.90
News—	
No. 1 White News	2.00 @ 2.10
Strictly overissue.	1.05 @ 1.15
Strictly Folded	.95 @ 1.05
No. 1 Mixed Paper.	.70 @ .80
Common paper	.60 @ .70

CHICAGO

[FROM OUR REGULAR CORRESPONDENT.]

Paper

F. o. b. Mill

All Rag Bond	35 @ 40
No. 1 Rag Bond	30 @ 35
No. 2 Rag Bond	15 @ 25
Water Marked Sulphite	10 @ 14
Sulphite Bond	8¼ @ 12
Sulphite Ledger	9½ @ 14
Superfine Writing	18 @ 24
No. 1 Fine Writing	14 @ 22
No. 2 Fine Writing	12 @ 20
No. 3 Fine Writing	9 @ 12
No. 1 M. F. Book	6½ @ 7
No. 1 S. & S. C. Book	7 @ 8¼
Coated Book	9 @ 15
Coated Label	9 @ 10
News—Rolls mill	4 @ 4½
News—Sheets, mill.	4½ @ 4¾
No. 1 Manila	4¾ @ 6
No. 1 Fibre	5¼ @ 5¾
No. 2 Manila	4½ @ 5
Butchers' Manila	4 @ 4½
No. 1 Kraft	7 @ 7½
No. 2 Kraft	6½ @ 7
Wood Tag Boards	5 @ 6
Screenings	5 @ 5½
Boards, per ton—	
Plain Chip	60.00 @65.00
Solid News	65.00 70.00
Manila Lined Chip	70.00 @72.50
Container Lined—	
85 Test	75.00 @80.00
100 Test	80.00 @85.00

Old Papers

F. o. b. Chicago

Shavings—	
No. 1 Hard White	3.50 @ 3.60
No. 1 Soft Shav.	3.25 @ 3.50
No. 1 Mixed	1.60 @ 1.70
No. 2 Mixed	1.50 @ 1.60
White Envel. Cuttings	3.25 @ 3.50
Ledgers and writings	1.90 @ 2.05
Solid Books	1.90 @ 2.05
No. 1 Books, Light.	1.65 @ 1.80
Blanks	2.15 @ 2.25
Ex. No. 1 Manila	2.00 @ 2.25
Manila Envelope Cuttings	2.50
No. 1 Manilas	1.60 @ 1.70
Folders News (over issue)	1.35 @ 1.45
Old Newspaper	1.20 @ 1.25
Mixed Papers	1.00 @ 1.10
Straw Clippings	.85 @ .90
Binders Clippings	1.00 @ 1.10
Kraft	2.40 @ 2.50
New Kraft Cuts	2.50 @ 2.60
Roofing Stock, f. o. b. Chicago, Net Cash—	
No. 1	32.00 @ —
No. 2	30.00 .. —
No. 3	28.00 @ —
No. 4	28.00 @ —

PHILADELPHIA

[FROM OUR REGULAR CORRESPONDENT.]

Paper

Bonds	.10 @ .60
Ledgers	.15 @ .40
Writings—	
Superfine	.15 @ .20
Extra fine	.12 @ .22
Fine	.20 @ .30
Fine, No. 2	.20 @ .25
Fine, No. 3	.15 @ .20
Book, M. F.	.06 @ .11
Book, S. S. & C.	.08 @ .15
Book, Coated	.08 @ .15
Coated Lithograph	.10 @ .15
Label	.08 @ .15
News	.05 @ .07
No. 1 Jute Manila	.12 @ .13
Manila Sul., No. 1.	.08 @ .10
Manila No. 2	.07½ @ .08
No. 2 Kraft	— @ .10
No. 1 Kraft	— @ .11
Common Bogus	.02½ @ .03
Straw Board	75.00 @85.00
News Board	65.00 @70.00
Chip Board	62.50 @67.00
Wood Pulp Board	1.25 @ 1.50
(Carload Lots)	
Binder Boards—	
Per ton	75.00 @80.00
Carload lots	75.00 @80.00
Tarred Felts—	
Regular	48.00 @50.00
Slaters	54.00 @56.00
Best Tarred, 1-ply (per roll)	1.35 @ 1.50
Best Tarred, 2-ply (per roll)	1.00 @ 1.15
Best Tarred, 3-ply	1.50 @ 1.65

Bagging

F. o. b. Phila.

Gunny No. 1—	
Foreign	1.25 @
Domestic	1.20 @ 1.25
Manila Rope	5.00 @ 6.25
Sisal Rope	.75 @ .80
Mixed Rope	.75 @ .80
Scrap Burlaps	1.00 @ 1.25
Wool Tares, heavy.	2.50 @ 2.75
Mixed Strings	.75 @ .80
No. 1, New Lt. Burlap	1.75 @ 2.00
New Burlap Cuttings	1.75 @ 2.10

Old Papers

F. o. b. Phila.

Shavings—	
No. 1, Hard White	4.00 @ 4.25
No. 2, Hard White	3.50 @ 3.75
No. 1 Soft White	3.50 @ 3.75
No. 2 Soft White	1.75 @ 2.00

(Continued on page 68)

Imports and Exports of Paper and Paper Stock

(*Continued from page 62*)

BOSTON IMPORTS

WEEK ENDING AUGUST 4, 1923

H. J. Dowd, Inc., Rheinland, Hamburg, 479 rolls wrapping paper.

H. J. Dowd, Inc., by same, 52 bls. wrapping paper.

M. O'Meara Co., Nevisian, Hamburg, 200 bls. kraft paper.

M. O'Meara Co., by same, 234 bls. Printing paper.

Shawmut Corp., by same, 937 rolls news print.

Stone & Downer, Nevisian, Bremen, 11 cs. paper.

Howell & Donaldson, Nevisian, Hamburg, 986 bls. wood pulp.

New York Trust Co., Rheinland, Hamburg, 768 bls. wood pulp, 97 tons.

R. F. Hammond, Inc., Mexicano, Gothenburg, 500 bls. wood pulp, 100 tons.

R. F. Hammond, Inc., Mexicano, Christiania, 500 bls. wood pulp, 100 tons.

M. Gottesman & Co., Inc., by same, 1,500 bls. wood pulp.

M. Gottesman & Co., Inc., Aval, Sundsvall, 1,750 bls. wood pulp.

Woodpulp Trading Co., Ltd., Mexicano, Gothenburg, 1,760 bls. sulphite pulp.

E. J. Keller Co., Inc., Rheinland, Hamburg, 219 bls. rags.

BALTIMORE IMPORTS

WEEK ENDING AUGUST 4, 1923

Melby, Kuttroff & Co., Inc., Rheinland, 125 rolls paper.

Castle & Overton, Holstein, Hamburg, 244 bls. wood pulp.

Woodpulp Trading Co., Ltd., Dania, Gothenburg, 3,157 bls. sulphite pulp.

NORFOLK IMPORTS

WEEK ENDING AUGUST 4, 1923

Olmstead Bros. & Co., Rheinland, Hamburg, 1,466 rolls paper.

PHILADELPHIA IMPORTS

WEEK ENDING AUGUST 4, 1923

E. J. Keller Co., Inc., Holstein, Bremen, 361 bls. wood pulp.

Castle & Overton, Germany, 1,370 bls. wood pulp.

Castle & Overton, W. Cawthorn, Havre, 586 bls. rags.

Castle & Overton, Breiz Izel, Havre, 125 bls. rags.

Castle & Overton, Grete, Hamburg, 95 bls. rags.

Castle & Overton, Olen, Bourdeaux, 164 bls. rags.

Waste Material Trading Corp., Vincent, Havre, 43 bls. rags.

E. J. Keller Co., Inc., by same, 248 bls. rags.

E. J. Keller, Holstein, Bremen, 151 bls. rags.

E. J. Keller Co., Inc., Ala, Rotterdam, 41 bls. rags.

E. J. Keller Co., Inc., Grete, Hamburg, 843 bls. rags.

LOS ANGELES IMPORTS

WEEK ENDING AUGUST 4, 1923

Castle & Overton, Texas, Havre, 312 bls. rags.

Obituary

Walter D. Wolfe

CINCINNATI, Ohio, August 6, 1923.—Walter D. Wolfe, secretary of the Cincinnati Cordage & Paper Company, died Friday.

Mr. Wolfe first became associated with the paper industry about fifteen years ago, accepting a position as salesman with the above company.

His straightforward business dealings and general personality soon won for him an enviable position among the Print Trade and paper merchants of Cincinnati. His sterling qualities were soon recognized by his business associates, and he was elevated to the secretaryship of his company, which position he held at the time of his death.

Mr. Wolfe had made a host of friends among the paper trade throughout the country.

Charles Marshall Blake

[FROM OUR REGULAR CORRESPONDENT.]

BELLOWS FALLS, Vt., August 6, 1923.—Charles Marshall Blake, senior member of the firm of Blake & Higgins, paper mill owners, is dead here of heart disease. He was born in Bellows Falls July 21, 1849, and had been engaged in mercantile and manufacturing all his life. He was the son of Seth M. Blake and a descendant of Little Baddow, Essex County, England, who came to Dorchester, Mass., in 1630.

Mr. Blake was married in 1880 to Eva L., daughter of the late Warren Walker. She died in 1913. There are two daughters, Emily W. of Bellows Falls, and Margaret Louise, who was married to Rev. Dwight W. Hadley, rector of Grace Church, Medford, Mass. Mr. Blake had seven brothers and two sisters.

George F. Underwood

GLENS FALLS, N. Y., August 6, 1923.—George F. Underwood, 78, died at his camp at Underwood, in the Adirondacks at noon today. Mr. Underwood was one of the pioneer lumbermen and paper mill men in this vicinity. He was one of the founders of the International Paper Company, and was interested in the Imperial Wall Paper Company and the Underwood Paper Mills at Pittsburgh.

Mr. Underwood was widely known for his philanthropic work.

BUSINESS WITH A BUDGET

(*Continued from page 60*)

In arriving at a complete definition of budgetary control, the responsibility of the organization must be considered besides its accountability through its accounts. If, as an illustration, a classification can be had of sales by territories so as to show the sales made by the office, say in Kansas City, in Fort Worth, and in San Francisco, budgets must be created and maintained for each. The best example of this plan is its application by insurance companies and automobile manufacturers. Their agents or sales representatives are required by the budgets to increase the volume of sales. Contracts with these agents usually provide that when this gain in sales is not made, the agencies are cancelled. There is no use making out a budget on a territorial basis under any of these circumstances, however, unless there is first established territorial responsibility.

This then, is the form of procedure in the establishment of budgetary control—first, determine the character of the organization, then analyze its accountability, and then establish the budget.

Due to federal taxation we have recently become a nation of accountants, but we have much to learn as to systematic control of business by means of the budget.

Tissue Men Want Official Seal

The Tissue Paper Manufacturers' Association is offering a cash prize of $50 for the best design for an Association seal.

This competition is open to anybody and will continue until September 15. Designs will then be submitted, without giving the names of the designers, to an impartial committee of three who will award the prize not later than October 1.

All designs are to be done on White Wedding Bristol, 5 x 6, and they are to be in India ink and sent, by registered mail, with the name and address on a separate sheet of paper to E. H. Naylor, Secretary, Tissue Paper Manufacturers' Association, 18 East 41st street, New York City.

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Manufacturers

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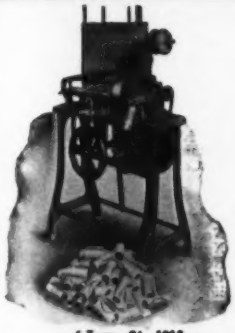
This Registered Trade Mark Octagon

on a Paper Bag Vouches for Its Good Quality



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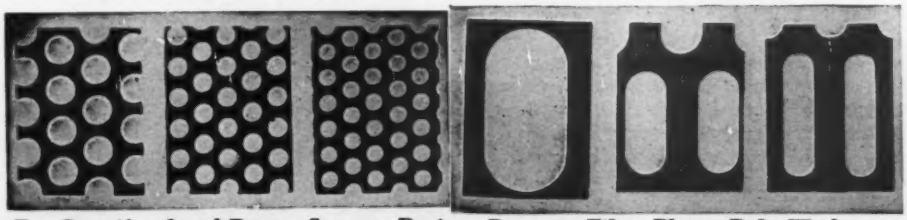
All sizes and shapes of Holes



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Miscellaneous Markets

OFFICE OF THE PAPER TRADE JOURNAL,
WEDNESDAY, AUGUST 8, 1923.

The chemical market still continues in the doldrums, with indications, however, that things will improve within a few days. In the first place the mills are sending in more and more inquiries with reference to future shipments and in the second place the trade revival in certain quarters of the paper industry will use up surplus supplies of chemicals and force manufacturers into the market once more. Prices, if anything, have declined slightly during the week with the exception of the sodas, which are a trifle stronger owing to a demand from other industries.

BLEACHING POWDER.—In the open market the demand for bleach has been rather wavering and prices in consequence have been unsteady. Almost no large shipments have been moved and dealers say that they think absolute bottom has been reached in the summer depression. The price has gone down a little and is now quoted at from 1.50 to 1.60 cents a pound.

BLANC FIXE.—Blanc fixe has been holding about the same during the week with few alterations either in price or in demand. The call for it is slow and the price is still at from $50 to $55 a ton on the pulp grade and $80 to $85 on the dry.

CHINA CLAY.—Although china clay is not drawing much interest at the present time from the paper mills there have been no changes in price. Dealers in both the domestic and imported grades admit that the market is not all that it should be, but prophesy that the present dull season will soon be dispelled and the paper mills come into the market strongly for their fall and winter supplies. The price on the domestic grades ranges from $14 to $17 a ton and on the imported is from $15 to $23 depending upon the grade required.

CAUSTIC SODA.—In spite of the fact that caustic soda like other chemicals is not in great demand among paper manufacturers some of the other industries are coming into the market for it in increasing quantities and this tending to keep the price firm at 3.17 to 3.20 cents a pound on a flat basis.

CASEIN.—Casein has remained about the same during the past week with little change either for the better or for the worse. It is thought that paper men are now beginning to use up their excess supplies because dealers are commencing to get inquiries about fall business. The price still stays at 15.50 to 17 cents a pound.

CHLORINE.—Manufacturers are slow to buy liquid chlorine for the paper industry although a number of other businesses are showing marked interest in it. The price remains at from 4.20 to 4.40 cents a pound in tanks.

ROSIN.—Rosin is still moving slowly along with other naval stores although it is believed that the slow period is just about over now and that a time of better business is at hand. The price has suffered a slight downward revision, however, and the grades of interest to paper makers are now quoted at 6.00 to 6.10 cents for 280 pounds in barrels.

SALTCAKE.—Dealers in saltcake say that they have not noticed any real change for the better in saltcake during the week although there are indications that there will be a turn in the market before long. The price is around $22 to $24 a ton and it is said that this can be shaded when large quantities are desired.

SODA ASH.—Spot soda ash proved of little interest to the paper industry during the week although there was a good demand for it reported from other quarters. Numerous inquiries have been received from paper men and this taken as an indication of early revival. The price remains at 1.50 to 2.00 cents a pound.

SULPHATE OF ALUMINA.—Alumina sulphate is still in poor demand. The price on the iron free grade is 2.05 to 2.25 cents a pound and on the commercial is still 1.25 to 1.35 cents.

Technical Index Ready

Index to Technical Section, for Vol. 75, July to December, 1922, and Vol. 76, January to July, 1923, are available at 10 cents each.

Market Quotations

(*Continued from page 65*)

No. 1 Mixed	1.60	@	1.75
No. 2 Mixed	1.25	@	1.50
Solid Ledger Stock	2.50	@	2.75
Writing Paper	2.25	@	2.50
No. 1 Books, heavy	2.00	@	2.25
No. 2 Books, light	1.40	@	1.50
No. 1 New Manila	2.75	@	3.00
No. 1 Old Manila	1.50	@	1.75
Container Manila	1.35	@	1.50
Old Kraft	2.25	@	2.50
Overissue News	1.50	@	1.60
Old Newspaper	1.00	@	1.50
No. 1 Mixer Paper	1.00	@	1.10
Common Paper	.80	@	.90
Straw Board, Chip	1.00	@	1.10
Binders Bd., Chip	1.00	@	1.10

Domestic Rags—New. Price to Mill, f. o. b. Phila.

Shirt Cuttings—			
New White, No. 1	.12	@	.12¼
New White, No. 2	.07	@	
Silicias, No. 1	.07¼	@	.07½
New unbleached	.10	@	.11
Washables	.04½	@	
Fancy	.05¼	@	.05½
Cottons—according to grades—			
Blue Overall	.05½	@	.05¾
New Blue	.03¾	@	.03¾
New Black Soft	.06¼	@	.06¾
New Light Seconds	.03½	@	.03¾
Khaki Cuttings	.11	@	.04¼
Corduroy	.03½	@	.04
New Canvass	.08¼	@	.08¾
New Black Mixed	.04	@	
Old White, No. 1—			
Repacked	.06	@	.06½
Miscellaneous	.04¾	@	.04¾
White, No. 2—			
Repacked	.03½	@	.04
Miscellaneous	.03	@	.03¼
Thirds and Blues—			
Repacked	2.00	@	2.25
Miscellaneous	1.85	@	1.90
Black Stockings	2.75	@	3.00
Roofing Stock—			
No. 1	1.35	@	1.40
No. 2	1.25	@	1.30
No. 3	1.15	@	1.20
No. 4	1.15	@	1.20
No. 5A	1.10	@	
B			nominal
C			nominal

BOSTON

[FROM OUR REGULAR CORRESPONDENT.]

Paper

Bonds	.09½	@	.63
Ledgers	.09½	@	.55
Writings	.08½	@	.42
Superfine	.16	@	.26
Fine	.15	@	.18
Books, S. & S. C.	.07¼	@	.12
Books, M. F.	.06¾	@	.09½
Books, coated	.09	@	.15
Label	.09	@	.13
News, sheets	4.75	@	6.00
News, rolls	4.50	@	5.75
Manilas—			
No. 1 Manila	$6.00	@	7.00
No. 1 Fiber	.06½	@	.07
No. 1 Jute	9.00	@	10.50
Kraft Wrapping	.07	@	
Common Bogus	3.50	@	3.85

Boards

(Per Ton Destination)

Chip	$60.00	@	—
News, Vat Lined	60.00	@	62.00
Wood, Vat Lined	70.00	@	—
Filled News Board	60.00	@	62.50
Solid News Board	67.00	@	70.00
S. Manila Chip	70.00	@	77.50
Pat. Coated	87.50	@	95.00

Old Papers

Shavings—			
No. 1 Hard White	4.00	@	4.15
No. 1 Soft White	3.25	@	3.35
No. 1 Mixed	.90	@	1.00
Ledgers & Writing	2.00	@	2.25
Solid Books	1.75	@	1.85
Blanks	1.25	@	1.50
No. 2 Light Books	1.50	@	
Folded News, overissues	1.00	@	
Gunny Bagging	1.00	@	—
Manila Rope	5.00	@	5.25
Mixed Papers	.80	@	.85
Old News	1.00	@	—
Old Kraft	2.25	@	—
No. 1 Scrap Burlap	.90	@	1.00
No. 2 Roofing Bagging	.60	@	.70
Mixed Strings, 1 cent per lb.			
No. 1 Roofing Rags	1.55	@	—

TORONTO

[FROM OUR REGULAR CORRESPONDENT.]

Paper

(Mill Prices to Jobbers f. o. b. Mill)

Bond—			
Sulphite	.11	@	.12½
Light tinted	.12	@	.13½
Dark Tinted	.13½	@	.15
Ledgers (sulphite)	—	@	.13
Writing	.09½	@	.12
News, f. o. b. Mills—			
Rolls (carloads)	3.75	@	—
Sheets (carloads)	—	@	4.50
Sheets (2 tons or over)	—	@	4.75
Book—			
No. 1 M. F. (carloads)	9.00	@	—
No. 2 M. F. (carloads)	8.00	@	—
No. 3 M. F. (carloads)	7.50	@	—
No. 1 S. C. (carloads)	9.50	@	—
No. 2 S. C. (carloads)	8.50	@	—
No. 1 Coated and litho.	14.00	@	—
No. 2 Coated and litho	13.00	@	—
No. 3 Coated and litho.	12.25	@	—
Coated and litho., colored	14.25	@	—
Wrapping—			
Grey	5.00	@	—
White Wrap	5.75	@	—
"B" Manila	6.00	@	—
No. 1 Manila	7.25	@	—
Fiber	7.25	@	—
Kraft, M. F.	8.00	@	—
M. G.	8.15	@	—

Pulp

(F. o. b. Mill)

Ground wood	$36.00	@	38.00
Sulphite easy bleaching	60.00	@	65.00
Sulphite news grade	50.00	@	55.00
Sulphite, bleached	90.00	@	92.50
Sulphate	70.00	@	72.50

Old Waste Papers

(In carload lots, f. o. b. Toronto)

Shavings—			
White Env. Cut	3.65	@	—
Soft White Book shavings	3.30	@	—
White Blk. News	1.80	@	—
Book and Ledger—			
Flat Magazine and Book Stock (old)	1.30	@	—
Light and Crumpled Book Stock	1.15	@	—
Ledgers and Writings	1.85	@	—
Solid Ledgers	2.00	@	—
Manilas—			
New Manila Cut	1.90	@	—
Printed Manilas	1.55	@	—
Kraft	2.25	@	—
News and Scrap—			
Strictly Overissue	1.00	@	—
Folded News	1.00	@	—
No. 1 Mixed Papers	.85	@	—

Domestic Rags—
Price to mills, f. o. b. Toronto Per lb.

No. 1 White shirt cuttings	12	@	
No. 2 White shirt cuttings	.06	@	—
Fancy shirt cuttings	.05½	@	.06
No. 1 Old Whites	.04½	@	—
Third and blues	.02¼	@	.02½
	Per cwt		
Black stockings	.03	@	—
Roofing stock:			
No. 1	—	@	—
No. 2	—	@	—
Roofing stock:			
Manila rope	.05½	@	.06
No. 2	1.55	@	—
Gunny bagging	.01½	@	—